उड़ान

नीना कौशल



राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्

अप्रैल 1976

चैत्र 1898

P. D. 2T

प्रकाशन विभाग से श्रीमती जे० अंजनी दयानन्द, सचिव, राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्, राष्ट्रीय शिक्षा संस्थान भवन, श्री अरविन्द मार्ग, नई दिल्ली 16 द्वारा प्रकाशित तथा न्यू इण्डिया प्रिंटिंग प्रेस, खुरजा में मुद्रित।

प्राक्कथन

वैमानिकी अब हमारे रोज के जीवन का एक अभिन्न अंग बन गई है। आजकल हमारे देश में लंबी दूरियों वाली डाक और मूल्यवान माल का भेजा जाना व लाखों यात्रियों का आवागमन प्रायः वायु मार्ग द्वारा ही होता है। पहाड़ी क्षेत्रों में जहाँ सड़कों और रेल मार्गों का बनाना कठिन है, हवाई जहाज ही परिवहन का मुख्य साधन है। अन्य स्थानों में भी जहाँ सड़क और रेल सेवाएँ सुगम हैं, वायु परिवहन ही दूर-दूर के स्थानों को जोड़ता है और उनके बीच की यात्रा को शीघ्रगामी बनाता है।

हवाई जहाज़ हमारे देश की सुरक्षा के लिए भी अत्यन्त महत्वपूर्ण है। भारतीय वायु सेना विविध प्रकार के कामों के लिए लड़ाकू विमान, बमवर्षक, परिवहन विमान और हैलिकोप्टर का उपयोग करती है। लड़ाकू विमानों की गति ध्वनि की गति से भी तेज़ होती है। कोई-कोई लड़ाकू विमान तो शत्रु के आक्रामक हवाई जहाज़ों को रोकने और खदेड़ने के लिए ध्वनि-गति से भी दुगुनी गति से उड़ सकते है। भारतीय वायु सेना के परिवहन विमान और हैलिकोप्टर असम, नेफ़ा, नागालैंड और लद्दाख के कई स्थानों में यात्री और माल ले जाते हैं। वे बाढ़ और भूकम्प जैसी प्राकृतिक विपत्तियों से पीड़ित लोगों को सहायता भी पहुँचाते हैं।

अभी हाल के कुछ ही वर्षों में हमारे विमान उद्योग ने अत्यधिक प्रगति कर ली है। यह उद्योग सैनिक और असैनिक उपयोग के लिए कई प्रकार के हवाई जहाज़ों का निर्माण करता है। इस निर्माण-कार्य के लिए काफी बड़ी संख्या में उच्च प्रशिक्षित पुरुषों और महिलाओं को नौकरियाँ मिलती हैं।

हमें विश्वास है कि वैमानिकी हमारे देश के जीवन में उत्तरोत्तर महत्वपूर्ण कार्य करती रहेगी। इसलिए यही उचित समय है जबकि हम अपने बालकों को इसके बारे में जानकारी दें। छोटी-सी यह सरल पुस्तिका इसी उद्देश्य की पूर्ति करती है। मुझे आशा है कि बच्चे और उनके अभिभावक इस पुस्तिका को पढ़ेंगे और उन्हें यह रुचिकर लगेगी।

वायु मुख्यालय
नई दिल्ली
15 दिसंबर, 1970

पी० सी० लाल
एयर चीफ़ मार्शल

मैं उन सभी महानुभावों के प्रति कृतज्ञ हूँ जिन्होंने मुझे सामग्री संकलन करने, चित्र तथा फोटो खींचने में सहायता की है। मैं उनका भी आभार प्रकट करती हूँ जिन्होंने मुझे समय-समय पर अपने अमूल्य सुझाव देकर मेरे कार्य को सुगम बनाने में सहायता प्रदान की।

लेखक

विषय-सूची

	पृष्ठ
प्राक्कथन	iii
अध्याय	
1. पाँच वर्ष के बालक की कहानी	1
2. उड़ने के शुरू के प्रयत्न	3
3. युद्धों में हवाई जहाज़ का प्रयोग	8
4. नागरिकों के लिए हवाई जहाज़	14
5. हवाई जहाज़ कैसे उड़ता है ?	18
6. भारत में उड़ान	25
7. भारतीय वायु सेना	31
8. वायु सेना में भरती होने का तरीका	34
9. वायु सेना के अफ़सर	36
10. भारतीय वायु सेना का काम–1	41
11. भारतीय वायु सेना का काम–2	46
12. युद्ध और शांति में हवाई जहाज़ों का प्रयोग	50

] □ □ □ □ # पाँच वर्ष के बालक की कहानी

यह एक पाँच वर्ष के लड़के की कहानी है। लगभग वीस वर्ष पहले यह लड़का एक छोटे-से नगर में रहता था। एक दिन जब वह बाग में खेलने गया तो उसने एक अनोखी आवाज़ सुनी। चारों ओर देखने पर भी वह न समझ सका कि आवाज़ किधर से आ रही है। वह सोच ही रहा था कि उसकी नज़र आकाश में बहुत ऊँचाई पर उड़ती हुई एक चीज़ पर पड़ी। परन्तु यह चीज़ उसके जाने-पहचानें पक्षियों में से नहीं थी। यह बहुत बड़ी और भूरे रंग की थी। वह आसमान की ओर टकटकी लगाए देखता रहा पर थोड़ी ही देर में वह चीज गायब हो गई।

इसके बाद बहुत दिनों तक वह जब भी बाग़ में जाता उसे प्रायः वही आवाज़ सुनाई देती और वही बड़ी चिड़िया दिखाई देती थी। वह उस आवाज़ को बड़े आनन्द से सुनता था और फिर आकाश में चारों ओर उसकी नजर उस चिड़िया को खोजती रहती थी।

वह इस आवाज़ को हर रोज़ कई बार सुनता था और उस बड़ी चिड़िया को देखने के लिए बाग में भागता रहता था। अगर वह खेल रहा होता तो खेल छोड़ देता, खाते-खाते खाना छोड़ देता और कभी-कभी तो नींद से भी उठ जाता था। ऐसा प्रायः प्रतिदिन होनें लगा और फिर उसके लिए यह एक खेल बन गया। रात के समय वह इस बड़ी चिड़िया को तो नहीं देख सकता था, परन्तु आकाश में ढूँढने पर उसे छोटी-छोटी रंगीन टिमटिमाती बत्तियाँ दिखाई देती थीं। उसे यह पता नहीं था कि वे बत्तियाँ उस चिड़िया की ही हैं।

उसके माता-पिता उसके इस व्यवहार से तंग आ गए। उन्होंने उसे बताया कि उस बड़ी चिड़िया का नाम 'विमान' अथवा 'हवाई जहाज़' है। उसने हवाई जहाज़ नज़दीक से कभी नहीं देखा था और वह नहीं जानता था कि पास से देखने में वह कैसा लगता है।

माता-पिता से इस विमान के बारे में तरह-तरह के प्रश्न के पूछने का कोई ान्त ही न था। वे तंग आकर कभी-कभी उसे डाँट देते थे। स्कूल में वह अपने ाध्यापक से भी ऐसे ही प्रश्न करता परन्तु वे इसे कक्षा के काम में बाधा समझ कर ोक देते थे। हवाई जहाज़ के बारे में और अधिक जानने की उसकी इच्छा को कोई ी समझ न सका।

दस वर्ष की आयु होने पर उसने निश्चय किया कि वह अपने प्रश्नों के उत्तर वयं खोजेगा। वह स्कूल के पुस्तकालय में जाकर पुस्तकों व पत्रिकाओं को देखता ारन्तु इन्हें पढ़ना उसके लिए बहुत कठिन था, इसलिए वह केवल चित्रों को ही देखकर ांतोष कर लेता था।

जैसे-जैसे समय बीतता गया वह अपनी पढ़ाई में व्यस्त रहने लगा। हवाई जहाज़ ी आवाज सुनकर बाहर भागने का समय अब उसके पास नहीं था, परन्तु जब भी उसे ाह आवाज़ सुनाई देती, उसके मन में उसके बारे में अधिक जानने की इच्छा तेज़ हो ाती थी। और फिर बड़े होने पर अपने प्रश्नों के उत्तर उसने स्वयं खोज लिए।

यह उस समय की बात है जब हमारे देश पर पड़ोसी देश चीन ने चढ़ाई कर ी। वह रेडियो पर लड़ाई के समाचार सुनता, समाचारपत्रों और पत्रिकाओं में वायु ेना के हवाई जहाज़ों के चित्र देखता व उनके बारे में सुनता। बहुत-सी बातें उसकी समझ में ही न आती थीं। वह समझ न पाता था कि हवाई जहाज़ों से किस ाकार लड़ाई लड़ी जाती है। वह लड़ाकू विमानों के बारे में जानना चाहता था।

अपने लक्ष्य को पूरा करने के लिए वह फिर पढ़ने लगा। कुछ वर्षों के बाद हमारे देश और पाकिस्तान के बीच युद्ध हुआ। अब जब भी वह समाचार पढ़ता व सुनता तो वह काफी अच्छी तरह से उन्हें समझ सकता था और अपने ज्ञान पर मन ही मन प्रसन्न होता।

बच्चों! तुममें से बहुतों ने इस कहानी के नन्हें बालक के समान हवाई जहाज़ों को देखा होगा व उसकी आवाज सुनी होगी। बहुतों ने तो इसे हवाई अड्डों पर भी देखा होगा और कुछ बच्चों ने हवाई जहाज से यात्रा भी की होगी। मुझे यकीन है कि तुम सबको अपने प्रश्नों के उत्तर नहीं मिले होंगे। इस पुस्तक में तुम्हें प्रश्नों के उत्तर खोजने में सहायता मिलेगी और तुम्हें हवाई जहाज़ के बारे में बहुत-सी बातों का पता लग जाएगा।

2 □ □ □ □ उड़ने के शुरू के प्रयत्न

बच्चों ! तुम सबने उड़ते हुए पक्षियों को तो जरूर देखा होगा। हज़ारों वर्ष तक मनुष्य इन पक्षियों को उड़ते हुए देखता रहा और यह सोचता रहा कि इन्हें उड़ने का यह अनोखा ज्ञान कैसे मिला। सबसे पहले पक्षियों को देखकर ही मनुष्य को उड़ने की इच्छा होने लगी। मनुष्यों ने पक्षियों जैसा उड़ना चाहा। परंतु बहुत कोशिश करने पर भी वे सफल न हुए। कुछ लोगों ने एक बहुत बड़ी पतंग बनाई जो उन्हें आकाश में उड़ा कर ले जा सके। तुम्हें यह जानकर भी हँसी आएगी कि कुछ लोगों ने नकली पंख लगाकर भी ऊँची जगह से कूदकर उड़ने की कोशिश की। उन्होंने सोचा कि ऐसा करने से वे उड़ सकेंगे। परंतु हर बार उन्हें चोटें लगीं और उनका हर प्रयत्न असफल रहा। एक रात की बात है, सर्दी के मौसम में एक व्यक्ति आग के पास बैठा ध्यान से आग से निकलते धुएँ को देख रहा था। उसने धुएँ को ऊपर जाते हुए देखा और यह सोचने लगा कि क्या यह धुआँ अपने साथ किसी दूसरी चीज़ को भी ऊपर ले जा सकता है। थोड़ी देर के बाद उसने एक रेशमी कपड़े की थैली बनाई और उसके नीचे कुछ कागज़ जलाए। जैसे ही थैली में धुआँ भरा, वह ऊपर की ओर उठने लगी।

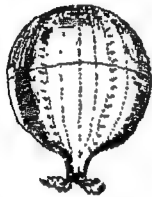


चित्र 1. धुएँ से भरी थैली ऊपर उठेगी

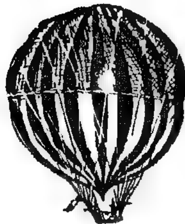
तुम भी घर पर एक साधारण कागज़ की थैली को धुएँ के ऊपर कुछ समय तक

कड़े रखो। कुछ क्षणों के वाद तुम देखोगे कि थैली में धुआँ भर जाएगा और यह भी ऊपर को उड़ने लगेगी।

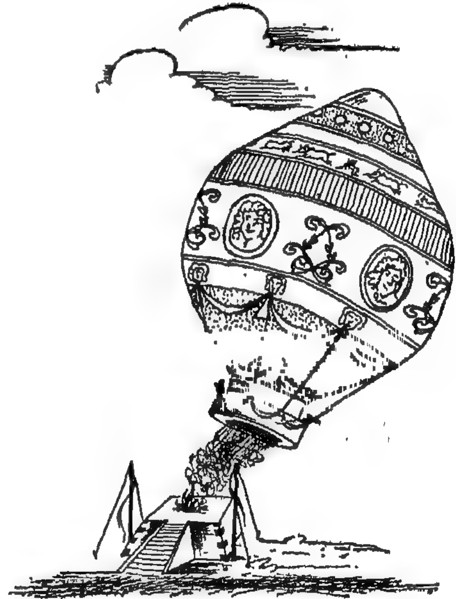
थैली को ऊपर उड़ते देखकर उस व्यक्ति को बड़ी प्रसन्नता हुई। उसने अनेक वस्तुओं से भिन्न-भिन्न आकार की थैलियाँ बनाईं। हर बार धुआँ भरने से वह ऊपर उड़ने लगी। यह देख कर उसे अधिक प्रसन्नता हुई। धीरे-धीरे उसके इस प्रयोग में सुधार होने लगा। दूसरे लोगों ने भी यह प्रयोग किए और सफल रहे।



चित्र 2. पहला गुब्बारा



चित्र 4. गुब्बारे प्रसिद्ध होने लगे



चित्र 3. पशुओं के जीवित लौट आने पर मनुष्यों को गुब्बारों में ऊपर भेजा जाने लगा

समय वीतता गया। लोगों ने गुब्बारे के समान वड़ी थैलियाँ वनाईं। एक वार उन्होंने गुब्बारे के साथ एक पिंजड़ा बाँधा जिसमें दो-तीन पशु बंद थे। उस गुब्बारे को आकाश में उड़ाया गया। कुछ समय वाद गुब्बारा पशुओं के साथ सुरक्षित

लौट आया। इसके बाद एक मनुष्य को गुब्बारे पर बैठा कर ऊपर भेजा गया। उन्हें डर था कि कहीं इस मनुष्य को चोट न लगे, इसलिए उन्होंने गुब्बारे को एक लंबी रस्सी से बाँध कर ऊपर उड़ाया। जब यह प्रयोग भी सफल हो गया तो मनुष्य को पुनः गुब्बारे में उड़ाया गया, परंतु इस बार गुब्बारे को रस्सी से नहीं बाँधा। धीरे-धीरे गुब्बारों में बैठकर और अधिक लोग ऊपर जाने लगे।

गुब्बारों में अनेक सुधार किए गए। वे आकाश में अधिक ऊँचाई तक जाने लगे और अधिक समय तक हवा में रहने लगे। शीघ्र ही गुब्बारों में मनुष्य कई दिनों का खाने का सामान, कपड़े व वैज्ञानिक यंत्र भी साथ ले जाने लगे।

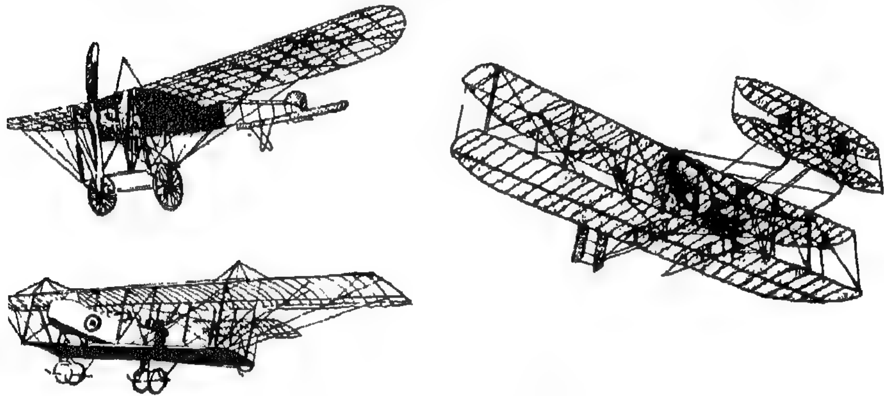
गुब्बारे केवल उसी तरफ को उड़ सकते थे जिस तरफ हवा की दिशा होती थी। इन गुब्बारों को मनचाही दिशा में उड़ाने का तरीका किसी की समझ में नहीं आया। यह तरीका लोगों को पसन्द नहीं आया क्योंकि अक्सर ये गुब्बारे वृक्षों, मकानों व पहाड़ों से टकराते थे।



चित्र 5. एक ग्लाइडर

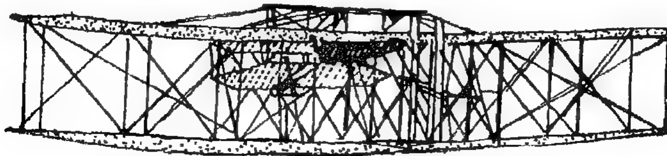
कुछ लोग हवा में उड़ने के अन्य उपाय खोज रहे थे। एक तरीका था ग्लाइडर में उड़ना। ग्लाइडर आधुनिक हवाई जहाज़ के समान ही होते हैं। परंतु इसमें न तो मशीन होती है और न ही इंजन। ग्लाइडर के पंख होते हैं। आजकल ग्लाइडरों को रस्सियों से बाँध दिया जाता है जिसे 'विंच' नामक एक खास मशीन या हवाई जहाज़

ींचते हैं। जब ग्लाइडर को खींचा जाता है तो हवा उसके पंखों से टकराती है और ह ऊपर उड़ने लगता है। निश्चित ऊँचाई पर पहुँचने पर रस्सी को गिरा दिया जाता और ग्लाइडर हवा में उड़ता हुआ कुछ समय बाद धीरे-धीरे भूमि पर उतर आता । ग्लाइडर का चालक (पाइलट) उसके रुख को बदल सकता है परंतु यह केवल ब तक हवा में रह सकता है जब तक हवा इसे सहारा दे। ग्लाइडर अधिकतर कुछ ो मिनटों तक हवा में उड़ सकते हैं, परंतु कुछ ग्लाइडर घंटों तक भी उड़ सकते हैं।



चित्र 6. कुछ प्राचीन हवाई मशीनें

अमरीका में दो भाई विल्बर और औरविल राइट भी अनेक प्रकार के प्रयोग र रहे थे। यह राइट ब्रदर्स के नाम से प्रसिद्ध हैं। कठिन परिश्रम करके उन्होंने नेक प्रयोग किए। करीब सत्तर वर्ष पहले, सन् 1903 में उन्होंने एक ऐसी मशीन नाई जो हवा में उड़ सकती थी।



चित्र 7. राइट ब्रदर्स की पहली मशीन

यद्यपि हवाई मशीन की पहली उड़ान 1903 में हुई थी परंतु इससे करीब पाँच सौ वर्ष पहले इटली के देशवासी ल्योनार्डो दि विंची ने हवाई जहाज़ का एक नमूना बनाया था।

पहली मशीन बहुत अच्छी थी और लोगों को दिखाने से पहले इस पर बहुत सुधार करना पड़ा। मशीन को उड़ते हुए देखकर लोग बहुत प्रसन्न हुए। धीरे-धीरे इन उड़ती हुई मशीनों में लोगों की रुचि बढ़ने लगी।

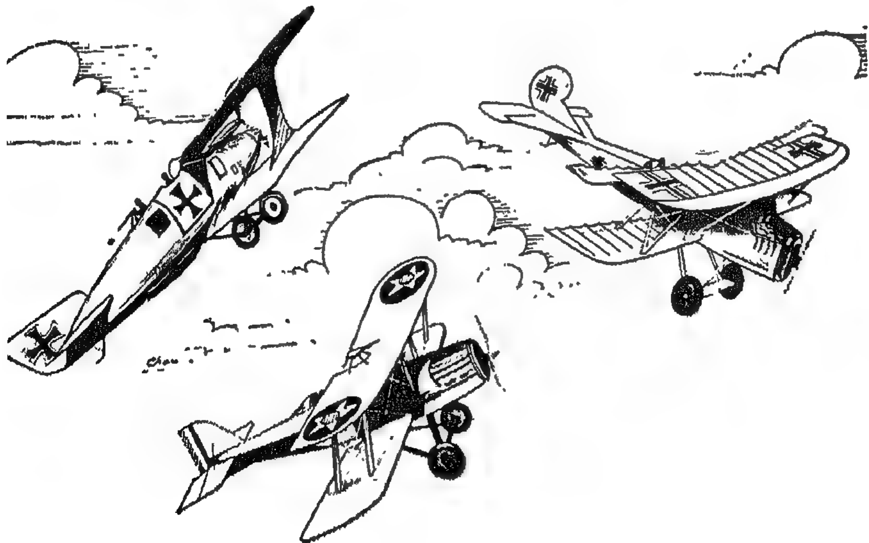
एक बार दो नगरों में उड़ान की प्रतियोगिता हुई। ये नगर एक दूसरे से करीब दो सौ मील की दूरी पर थे। इस उड़ान को पूरा करने में करीब चौबीस घंटे लगे थे। आज के हवाई जहाज़ इस दूरी को आधे घंटे से कम समय में तय कर लेते हैं। इस प्रतियोगिता को जीतने वालों को हज़ारों रुपयों का इनाम दिया गया।

राइट ब्रदर्स ने हवाई जहाज़ उड़ाने की शिक्षा देने के लिए स्कूल खोले। इससे लोगों की रुचि और अधिक बढ़ने लगी। कुछ लोगों ने राइट ब्रदर्स के साथ मशीनें बनानी शुरू की और कुछ स्वयं अन्य प्रयोग करने लगे। मशीनों में सुधार होता गया और धीरे-धीरे इनके आकार और संख्या में भी वृद्धि होती गई।

□ □ □ □ युद्धों में हवाई जहाज़ का प्रयोग

ा विश्वयुद्ध आरंभ हुआ। जिन देशों ने युद्ध में भाग लिया उनमें से आस्ट्रिया, र्मनी, इंग्लैंड और रूस थे। बड़े होने पर तुम इस युद्ध के बारे में और अधिक ार से पढ़ोगे।

मैं तुम्हें केवल इतना ही बताऊँगी कि लोगों को उस समय युद्ध में हवाई ों के सही उपयोग का पता न था। अनेक देशों की सरकारें विमानों पर अधिक ख़र्च करना नहीं चाहती थीं। शत्रुओं की जानकारी लेने और सेना को ठीक दिशा के लिए गुब्बारे प्रयोग में लाए जाते थे। युद्ध समाप्त होने के समय लोगों ाई जहाजों का प्रयोग आरंभ कर दिया।



चित्र 8. पहले महायुद्ध के कुछ हवाई जहाज



चित्र 9. हवाई जहाज़ से बमबारी

तुम्हें यह जानकर हैरानी होगी कि जब पहली बार चालक ने विमान का उपयोग युद्ध में करना चाहा तो उसने तोप को हवाई जहाज़ के ऊपर रखा। तोप के भार के कारण जहाज़ बहुत ऊपर न उड़ सका।

युद्ध के साथ-साथ हवाई जहाज़ों का प्रयोग भी बढ़ता गया। हवाई जहाज़ों को बनाने के अनेक कारखाने और हवाई अड्डे बनाए गए। हवाई जहाज़ों का प्रयोग बम गिराने, शत्रुओं की सेना, टैंक और गाड़ियों को नष्ट करने के लिए होने लगा। इनके द्वारा शत्रु सेना और अन्य मुख्य लड़ाई के स्थानों की जानकारी भी प्राप्त होने लगी। खाद्य सामग्री, पैट्रोल भंडार, कारखाने, बिजलीघर, रेलवे स्टेशन, हवाई अड्डे, पुल और अन्य सामान आदि के भंडार ही युद्ध में मुख्य स्थान होते हैं। इस काम को करने के लिए हजारों युवकों ने हवाई जहाज़ को उड़ाना सीखा। युद्ध में हवाई जहाज़ों का महत्व अब लोगों की समझ में आ गया था।

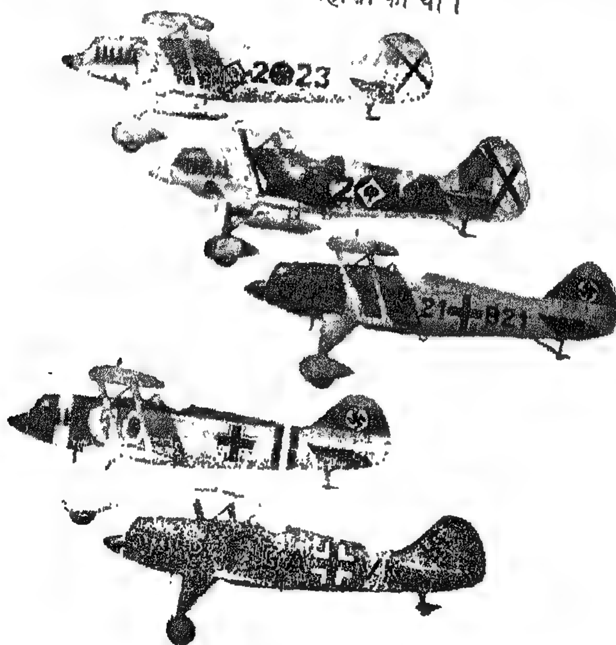
जब पहला महायुद्ध समाप्त हुआ तो बहुत-से देशों की सरकारों को हवाई ज़हाज़ों के अन्य उपयोगों के बारे में चिंता होने लगी। किसी को हवाई जहाज़ों की

ा न थी। इसलिए नए हवाई जहाज़ बनने बंद हो गए। जहाज़ों को अन्य काम में लाने ए लोग सोचने लगे। कुछ यूनानियों ने सोचा कि यह युद्ध के अलावा और अन्य में भी लाए जा सकते हैं। रेल यात्रा की जगह हवाई जहाजों से यात्रा जल्दी हो ा है। इस प्रकार हवाई जहाज़ से यात्रा का आरंभ हुआ। जर्मनी और हालैंड में पहले लोगों के लिए आमतौर से हवाई यात्रा शुरू हुई। इसके बाद ब्रिटेन और जैसे कई देशों ने भी हवाई यात्राएँ आरंभ कीं। उस समय के हवाई जहाज़ों में कम लोग जा सकते थे और यात्रा बहुत ही महँगी होती थी। कुछ सरकारों ने जहाज़ों में डाक ले जाना शुरू किया।

कई देशों की सरकारों ने मिल-जुल कर हवाई नियम बनाए। यह तुम्हारे जाने-ने यातायात के सुरक्षा नियमों के समान थे। ये हवाई नियम आकाश में अड़चनों दुर्घटनाओं को कम करने के लिए बनाए गए थे। इन सरकारों ने फैसला किया वाई जहाज़ों की जाँच करने के बाद ही उन्हें उड़ने की इजाज़त दी जाएगी। यात्रा सुरक्षित बनाने के लिए ही ऐसा किया गया। चालक को उड़ान के समय ता ज़मीन पर स्थित कर्मचारियों से मिलती थी। इस सहायता से दुर्घटनाएँ होने भावना, विशेषकर बुरे मौसम में, कम हो गई। यह सहायता एक नए ढंग के ; रेडियो द्वारा दी जाती थी। इससे चालक और सहायता देने वाले कर्मचारी ्सरे से बात कर सकते थे। हवाई जहाज़ आकार में बड़े और तेज़ गति से उड़ने बनने लगे। हवाई जहाज़ की उड़ान अधिक सुखद, सफल और लोकप्रिय लगी।

जैसा कि तुम्हें मालूम ही है कि प्रथम महायुद्ध के समाप्त होने तक अनेक देशों वाई जहाज़ों की उपयोगिता का पता लग चुका था। अतः द्वितीय महायुद्ध ोने पर अनेक देशों में वायु सेनाएँ स्थापित हो गई थीं। वायु सेनाओं ने इस युद्ध त्वपूर्ण भाग लिया। इस युद्ध से पता लगा कि यदि एक देश की वायु सेना शत्रु यु सेना पर विजय प्राप्त करती तो उस विजयी देश की स्थल सेना, वायु सेना और ा को युद्ध लड़ने में बहुत सहायता मिलती है। द्वितीय महायुद्ध में अमरीका ब्रिटेन की संयुक्त वायु सेना ने जर्मन वायु सेना को घमासान लड़ाई के बाद हरा

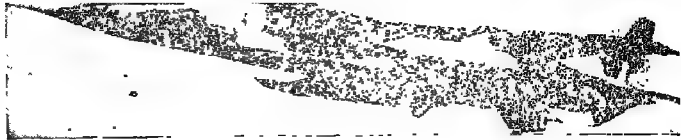
दिया। इससे अमरीकी और ब्रिटिश स्थल सेनाओं को बहुत सहायता मिली। इसी तरह जापानी और अमरीकी नौसेना में युद्ध हुआ। अमरीकी नौसेना युद्ध में जीत गई, जब कि अमरीकी नौसेना जापानी नौसेना से अधिक शक्तिशाली न थी। यह इसलिए हुआ क्योंकि अमरीकी वायु सेना, जापानी वायु सेना से अधिक सुदृढ़ थी। वायु सेना के महत्व को देखकर हवाई जहाजों में सुधार होने लगे, आकार में परिवर्तन होने लगे। अधिक बड़े और तेज उड़ने वाले हवाई जहाजों का निर्माण होने लगा। इनमें से सबसे जरूरी सुधार जैट-इंजन जहाजों का था।



चित्र 10. कुछ प्रारंभिक लड़ाकू जहाज

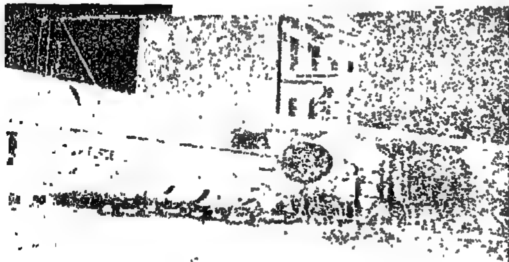
इसी समय जर्मनी द्वारा एक अस्त्र बनाया गया जिसे 'मिसाइल' कहते हैं। करीब इसी समय हैलिकोप्टर भी बनाए गए। इनके बारे में, तुम आगे पढ़ोगे।

1. (क) जेगुआर



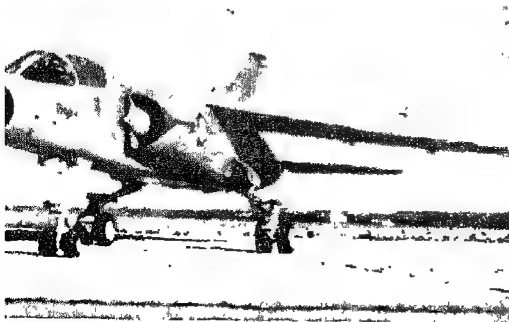
(ख) लाइटनिंग



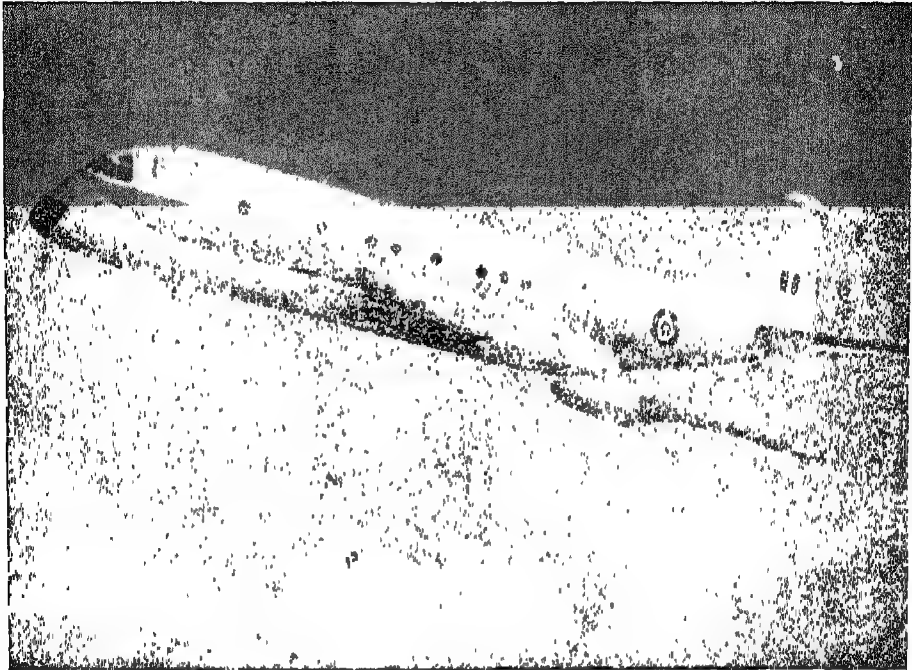


चित्र 11. (ग) सी 5 ए ग्लैक्सी

कुछ नए हवाई जहाज़



चित्र 11. (घ) मिराज



चित्र 11 (ब) नीमरोव

अमरीका, रूस और अनेक अन्य देशों में वैज्ञानिक खोज हो रही है और बहुत प्रकार के नए हवाई जहाज़ बनाए जा रहे हैं। यह पहले हवाई जहाज़ों से बहुत बड़े और तेज चलने वाले हैं। मैं तुम्हें इन नए हवाई जहाज़ों के बारे में आगे बताऊँगी।

मैंने अभी तुम्हें बताया है कि किस तरह मनुष्य ने उड़ना सीखा, कैसे उनकी रुचि बढ़ी और उन्नति हुई। अनेक लोगों के कठिन परिश्रम के कारण आज संसार में अनेक प्रकार के तेज चलने वाले बड़े और सुंदर हवाई जहाज़ हैं।

4 □ □ □ □ नागरिकों के लिए हवाई जहाज़

तुम सबको मालूम है कि प्रथम महायुद्ध के बाद हवाई जहाजों से लोग यात्रा करने लगे। जब इनका महत्व लोगों की समझ में आया तो अधिक हवाई जहाज बनने लगे। सड़क, रेल और नदी द्वारा यात्रा में बहुत समय लगता है। जैसा कि तुम्हें पहले बताया गया है द्वितीय महायुद्ध के समय अनेक देशों में हवाई जहाज़ और वायु सेनाएँ स्थापित की गई थीं। युद्ध के हवाई जहाजों के साथ-साथ यात्रा के हवाई जहाज़ों में भी सुधार हुआ। ये अधिक सुविधाजनक थे और अधिक लोगों को ले जा सकते थे।

हवाई यात्रा के लिए अनेक देशों में एयर लाइनों की स्थापना हुई। जर्मनी और हॉलैंड ने सबसे पहले अपने देशों में एयर लाइनों की स्थापना की। अन्य देशों ने इनका अनुसरण किया। आज करीब सभी देशों की एयर लाइन्स है। भारत में यात्रा करने के लिए 'इंडियन एयर लाइन्स' और विदेशों को जाने के लिए 'एयर इंडिया' के हवाई जहा हैं। इसी तरह अमरीका, जापान, ब्रिटेन, पाकिस्तान, रूस आदि देशों के भी अपने-अपने एयर लाइन्स हैं।

तुमने हवाई जहाज में यात्रा करते हुए लोगों के चित्र अवश्य देखे होंगे। एयर लाइन्स के हवाई जहाज़ों में यात्रियों के लिए आरामदेय कुर्सियाँ, कंबल व सिरहाने होते हैं। उड़ान के समय यात्रियों को जलपान व भोजन दिया जाता है। यात्रियों के पढ़ने के लिए पत्रिकाएँ व समाचार पत्र होते हैं। हवाई जहाज में सामान रखने व भोजन बनाने का स्थान और शौचालय इत्यादि भी होते है।

हवाई जहाज को उड़ाने व यात्रियों की सुविधा के लिए करीब पाँच या छः कर्मचारी काम करते हैं। यह सब 'हवाई कर्मी' (air crew) कहलाते है। हवाई कर्मियों



चित्र 12 (क). डगलस डी सी 10

चित्र 12 (ख). टी यू 134

एयर लाइन्स द्वारा प्रयोग में लाए जाने वाले कुछ आधुनिक हवाई जहाज



चित्र 12 (ग). बोइंग 747



चित्र 13. विमान में प्रशिक्षण लेता हुआ एक पायलट

की संख्या हवाई जहाज़ के आकार पर निर्भर है। चालक हवाई जहाज़ चलाता है और हवाई कर्मियों का 'कप्तान' होता है। कप्तान की सहायता 'सह-चालक' करता है।

आकाश में सड़कें नहीं हैं इसलिए सही रास्ता खोजने के लिए एक अफ़सर को विशेष यंत्र और रेखाचित्र की सहायता लेनी पड़ती है। इस अफ़सर को 'दिक्चालन निर्देशक' कहते हैं। यह चालक को ठीक रास्ते पर जाने में सहायता देता है। हवाई जहाज़ में एक इंजीनियर समय-समय पर यंत्रों व मशीनों की जाँच-पड़ताल करता रहता है। छोटे-छोटे दोषों को वह स्वयं ठीक कर लेता है और उनके बारे में चालक को बताता है। हवाई जहाज़ से रेडियो अधिकारी जमीन पर अन्य अधिकारियों से बातचीत करता है। वह चालक और दिक्चालक निर्देशक को दिशा खोजने और नीचे आने के यंत्रों के प्रयोग में सहायता देता है। वह रेडियो और रेडार की देखभाल भी करता है। इनके बारे में तुम आगे पढ़ोगे।

हवाई कर्मियों के साथ हवाई जहाज़ों में 'एयर होस्टेस' और 'स्टूअर्ड' भी होते हैं। यह सब यात्रियों की सहायता और देखभाल करते हैं; उन्हें चाय, पानी, नाश्ता, भोजन देते हैं और संकट के समय यात्रियों की सहायता करते हैं और हिम्मत भी बढ़ाते हैं। तुम सभी ने हवाई अड्डा देखा होगा। यदि नहीं देखा हो तो मैं तुम्हें उनके बारे में बताती हूँ।

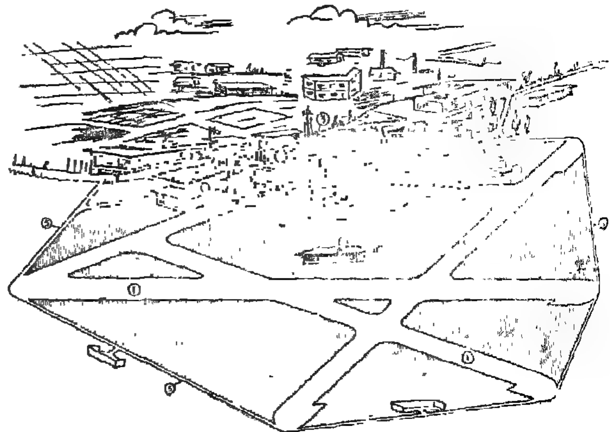
हवाई अड्डे पर एक या दो विशेष सड़कें होती हैं जिन्हें 'उड़ान पट्टियाँ' कहते हैं। उड़ान से पहले व बाद में हवाई जहाज़ इन पट्टियों पर चलता है।

'टर्मिनल बिल्डिंग' वह जगह है जहाँ तुम लोगों को लेने या उन्हें पहुँचाने जाते हो। इस टर्मिनल बिल्डिंग में यात्रियों के ठहरने के कमरे, होटल, बुकिंग दफ़्तर, कस्टम दफ़्तर, दुकानें और ड्रेसिंग रूम होते हैं।

हवाई अड्डे पर एक बड़ी इमारत होती है जिसे 'कंट्रोल टावर' कहते हैं। इसके ऊपर से सारा हवाई अड्डा दिखाई देता है। इस टावर से कंट्रोलर हवाई जहाज़ों के उतरने और उड़ान भरने का निरीक्षण करते हैं। वह रेडियो द्वारा आदेश देते रहते हैं। जिस जगह हवाई जहाज़ जा रहा होता है और जिन जगहों से उसे गुजरना होता है उनके मौसम का हाल भी इसी इमारत से दिया जाता है। यहीं पर स्थित एक दफ़्तर से चालक को उड़ान व रास्ते के बारे में समझाया जाता है।

हवाई जहाज़ रखने की जगह को 'हैंगर' कहते हैं। इस जगह में छोटी-छोटी खराबियों को सुधारने का काम भी होता है। हैंगर मे उड़ान पट्टियों तक जाती हुई छोटी सड़कों को 'टैक्सी ट्रैक' कहते हैं।

जीप, हवाई जहाज़ पर चढ़ने की विशेष सीढ़ियाँ, सामान लाने-ले-जाने के लिए वाहन, पैट्रोल की गाड़ियाँ इत्यादि भी हवाई अड्डे पर होती हैं।



चित्र 14. एक हवाई अड्डा

1. उड़ान पट्टी
2. मौसम सूचक ग्राउंड कंट्रोलर दफ़्तर
3. कंट्रोल टॉवर
4. हैंगर
5. टैक्सी ट्रैक
6. टर्मिनल बिल्डिंग

5 □ □ □ □ हवाई जहाज़ कैसे उड़ता है ?

मैंने अभी तक तुम्हें हवाई जहाज़ों और उनके सुधार के बारे में ही बताया है। तुम सब यह जानने के लिए उत्सुक होगे कि हवाई जहाज़ कैसे चलता है और कितने प्रकार के हवाई जहाज़ होते हैं। जिन बच्चों ने हवाई जहाज़ कभी नहीं देखा, उन्हें उसके बारे में मैं सब बातें नीचे बता रही हूँ।

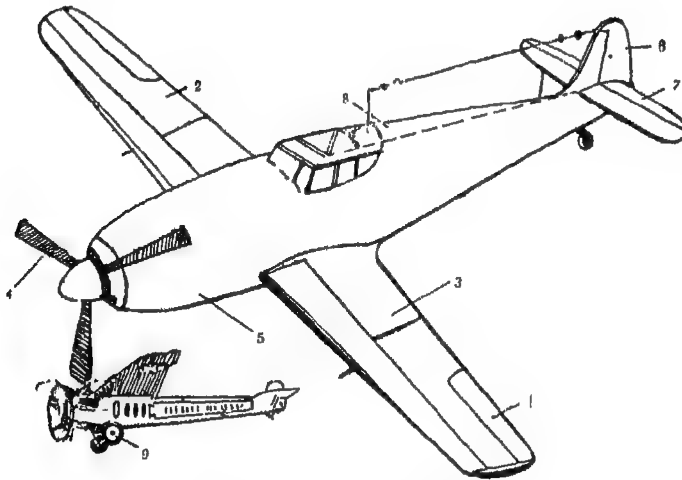
तुम सबने कभी-न-कभी पतंग उड़ाई होगी। यदि किसी को पतंग उड़ाते हुए ध्यान से देखोगे तो तुम्हें पता चलेगा कि पतंग को पहले जमीन पर रखा जाता है और इसे एक डोर से बाँध दिया जाता है। पतंग उड़ाने वाला इस डोर को खींचते हुए भागता है। पतंग हवा के विपरीत खींची जाती है, ऐसा होने पर पतंग धरती से ऊपर उड़ जाती है। तेज भागने से पतंग पर हवा का जोर बढ़ता है और जमीन से उठकर वह हवा में उड़ने लगती है।

जब पतंग उड़ाने वाला पतंग की डोर को लेकर भागता है तो उसके हाथ पर खींच पड़ती है। इस खिचाव को 'ड्रैग' कहते हैं। पतंग उड़ाने वाले को पतंग के साथ-साथ तेज़ भागने के लिए अधिक जोर लगाना पड़ता है। इस अधिक जोर को 'थ्रस्ट' कहते हैं। अगर वह जोर से भागेगा तो पतंग तेज़ उड़ेगी।

पतंग खींचने से ही हवा में ऊपर उठ कर उड़ने लगती है। हवा के जिस जोर से पतंग ऊपर को उठती है उसे 'लिफ्ट' कहते हैं। पतंग के ऊपर उठते समय 'ड्रैग' उत्पन्न होता है। बिना ड्रैग के 'लिफ्ट' भी नहीं हो सकता।

पतंग का बोझ उसे नीचे की ओर दबाता है। ड्रैग, लिफ्ट, खिचाव और भार के मिलने से ही पतंग ऊपर उड़ती है। अगर पतंग का बोझ लिफ्ट से अधिक हो तो पतंग नीचे को आती है और अगर बोझ लिफ्ट से कम हो तो पतंग ऊपर को उड़ती है।

पतंग उड़ाने वाले के भागने से पतंग पर खिचाव होता है। हवाई जहाज़ में यह खिचाव इंजन और 'प्रोपेलर' (हवाई जहाज़ के सामने लगे पंखे) द्वारा उत्पन्न होता है। जब हवाई जहाज़ चलता है तो हवा उसके पंखों से टकराती है। इससे पतंग के समान ड्रैग और लिफ्ट उत्पन्न होता है। पतंग के समान ही हवाई जहाज़ का बोझ उसे नीचे की ओर खींचता है। जैसा कि मैंने अभी तुम्हें बताया है, भार; ड्रैग, लिफ्ट और खिचाव सही तरह से मिलने पर हवाई जहाज़ उड़ता है।



चित्र 15. विमान और उसके अंग

(1) सहपक्ष (2) पल्ला (3) पंख या डैनी (4) पंखा (5) इंजन (6) सुकान (रेडार) (7) उत्थापक-यंत्र (8) धड़ और (9) अवचक्र

अब तुम समझ ही गए होगे कि अगर भार से लिफ्ट अधिक हो तो हवाई जहाज़ ऊपर जाएगा। अतः लिफ्ट को बढ़ाने या घटाने से हवाई जहाज़ को ऊपर या नीचे ले जाया जा सकता है। यह हवाई जहाज़ की पँछ या पिछले भाग से लगे 'एलिवेटोर'

द्वारा किया जाता है (चित्र 15 देखिए)। एलिवेटर को ऊपर या नीचे झुकाने से हवाई जहाज़ की पूँछ भी ऊपर या नीचे हो जाती है जिससे लिफ्ट बढ़ती या घटती है।

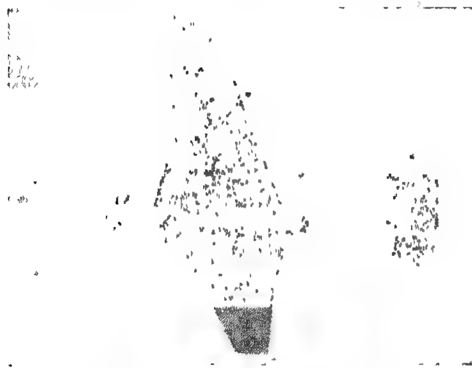
इसी तरह खिंचाव को अधिक करने से हवाई जहाज़ आगे तेज़ी से जाता है। हवाई जहाज़ के उड़ने की रफ्तार इंजन की शक्ति कम या अधिक करने से घटाई या बढ़ाई जा सकती है।

हवाई जहाज़ों को दाएँ या बाएँ भी घुमाया जा सकता है। यह हवाई जहाज़ की पूँछ से लगे हुए रडार द्वारा होता है। (चित्र 15 को देखो)। यह रेडार नाव और पानी के जहाज़ों में लगे रेडार के समान होता है। जब रेडार को बाएँ घुमाया जाता है तो हवाई जहाज़ बाईं ओर घूम जाता है और रेडार को दाहिनी ओर घुमाने से हवाई जहाज़ दाईं ओर घूम जाता है। घूमते समय हवाई जहाज़ उसी ओर थोड़ा झुकता है और यह झुकाव 'एलरौन' की सहायता से होता है। एलरौन हवाई जहाज़ के पंखों के छोर पर लगे होते हैं। (चित्र 15 को देखो)। एलरौन और रेडार दोनों को सही तरह से चलाने पर हवाई जहाज़ अच्छी तरह से उड़ता है।

अंत में हमें जानना है कि हवाई जहाज़ कैसे उड़ने लगता है। जमीन पर हवाई जहाज अपने पहियों पर खड़ा होता है। पहले हवाई जहाज़ हवाई अड्डे की पट्टी पर दौड़ता है। दौड़ते समय उसकी गति तेज़ की जाती है। तेज गति और प्रेरक या प्रोपेलर के चलने से हवा पंखों से टकराती है। उसी समय पंखों के रुख को थोड़ा बदला जाता है। यह पंख पर लगे 'फ्लैप' द्वारा किया जाता है। ऐसा करने से लिफ्ट बढ़ जाती है और हवाई जहाज़ उड़ने लगता है। इसे उड़ान भरना या 'टेक ऑफ' कहते हैं। हवाई जहाज़ को नीचे लाने के लिए इसका उलटा कार्य करना पड़ता है। प्रोपेलर से ड्रैग उत्पन्न होता है जो फ्लैप के द्वारा बढ़ाया जाता है। इससे हवाई जहाज़ की रफ़्तार कम होती है और साथ-ही साथ यह नीचे आने लगता है। जमीन को छूकर यह हवाई पट्टी पर कुछ समय चलता है और फिर 'ब्रेक' लगाने से उसे रोका जाता है। इसे 'अवतरण' या 'लैंडिंग' कहते हैं।

पिछले अध्याय में मैंने तुम्हें कुछ प्रकार के हवाई जहाज़ों के नाम बताए थे। अब मैं तुम्हें इनके बारे में बताऊँगी।

करीव सभी आधुनिक हवाई जहाज़ जैट इंजन के होते हैं और वायुयान कहलाते हैं। इनके सामने प्रोपेलर नहीं होते हैं। हवा इन जैट इंजनों में दवा कर भरी जाती है। इस दवी हवा में एक खास तरह के ईंधन को विजली की चिनगारी से जलाया जाता है। गर्म हवा दवाव के कारण जैट के समान एक विशेष छेद से वाहर निकलती है। जैट हवाई जहाज़ सीटी की आवाज़ करता हुआ बहुत तेज़ी से उड़ता है। बड़े होने पर तुम इसके वारे में अधिक समझ सकोगे।

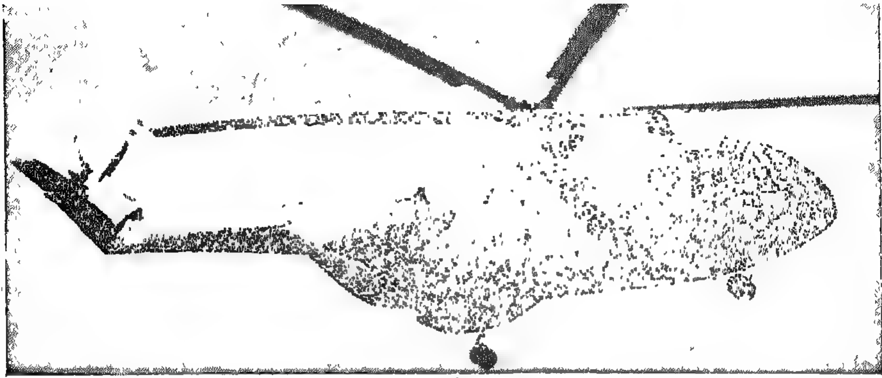


चित्र 17. प्रक्षेपास्त्र

चित्र 16. वैम्पायर जैट विमान

'मिसाइल' या प्रक्षेपास्त्र द्वितीय महायुद्ध में बने थे। मिसाइल चालकों द्वारा नहीं उड़ाई जाती है। मिसाइल जैट की सहायता से ऊपर जाती है। यह जैट हवाई जहाज़ के जैट के समान होती है। उड़ती हुई मिसाइल को जमीन से रेडियो, रेडार और अन्य इलैक्टॉनिक यंत्र नियंत्रण में रखते हैं। मिसाइल को नियंत्रण में रखने का अर्थ है मिसाइल को घुमाना, ऊपर-नीचे करना व तेज़ चलाना, इत्यादि।

करीव 30 वर्ष पहले 1940 में एक नई किस्म की उड़ने की मशीन वनाई गई थी। हैलिकौप्टर नामक इस मशीन के ऊपर एक वड़ा पंखा होता है। 'रोटर' नामक इस पंखे के घूमने से हैलिकौप्टर उड़ता है। वहुत से हैलिकौप्टरों को चलाने के लिए जैट इंजन होते हैं। हैलिकौप्टर की गति को अधिक या कम किया जा सकता है, यह



चित्र 18. हैलिकौप्टर

पंखे को तेज या धीरे चलाने से होता है। हैलिकौप्टर की पूँछ पर भी एक छोटा-सा पंखा होता है। यह पंखा हैलिकौप्टर की दिशा को नियंत्रित करता है और उसे लट्टू के समान गोल-गोल घूमने से रोकता है। हैलिकौप्टर किसी भी दिशा में उड़ सकता है—सीधा, ऊपर या नीचे, आगे या पीछे, दाएँ या बाएँ। यह आकाश में एक जगह पर भी खड़ा रह सकता है। कुछ हैलिकौप्टरों पर दो बड़े पंखे भी होते हैं। अक्सर दस मनुष्य हैलिकौप्टर में यात्रा कर सकते हैं, परंतु कुछ आधुनिक हैलिकौप्टरों में 35 से 40 मनुष्य भी यात्रा कर सकते हैं। छोटी-सी जगह से ऊपर उड़ सकने के कारण हैलिकौप्टर लोगों को बचाने और अन्य बचाव के काम में लाया जाता है। हैलिकौप्टर पहाड़ों में फँसे, युद्ध क्षेत्र में घायल, या बाढ़ की चपेट में आए लोगों की सहायता करते हैं। यह लोगों को नगरों से हवाई अड्डों पर भी ले जाने के काम में लाए जाते हैं जिससे भीड़ के कारण देरी न हो। हैलिकौप्टर डाक भी ले जाते हैं।

चलो, अब हवाई जहाज के अन्दर चलें। हवाई जहाज़ के एकदम सामने 'काकपिट' होता है। काकपिट में अनेक डायल, नापने के यंत्र, स्विच इत्यादि होते हैं जिससे इंजन पर नियंत्रण किया जाता है। यहाँ चालक, सहचालक, इंजीनियर, दिक्-चालन निर्देशक और रेडियो अफसर का सीटें और भिन्न-भिन्न यंत्र होते हैं। ये सब अधिकारी हर हवाई जहाज में नहीं जाते क्योंकि अधिकारियों की संख्या हवाई जहाज़ के आकार और यात्रा की दूरी पर निर्भर होती है। काकपिट के एक भाग में 'क्रू' के आराम करने का स्थान होता है। काकपिट के एक अन्य भाग से एयर होस्टेस और

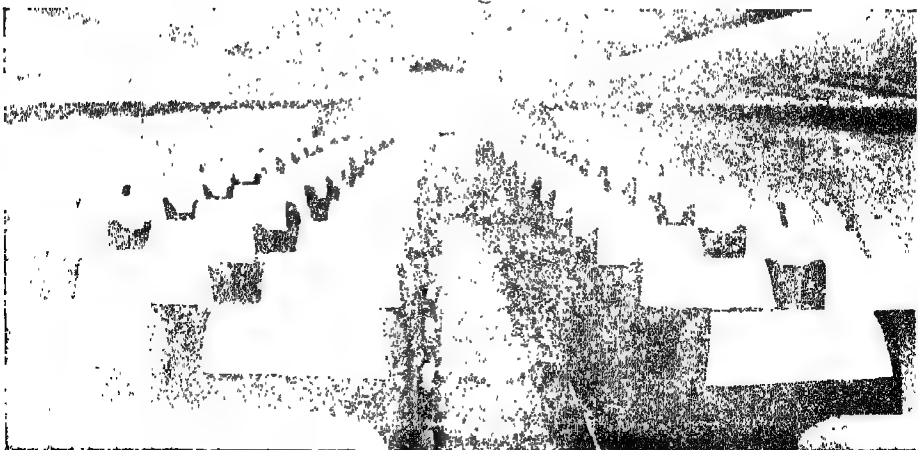


चित्र 19 (क). हवाई जहाज के अंदर का भाग—काकपिट का भीतरी दृश्य

स्टूअर्ड सूचना देते हैं और खाने-पीने की सामग्री भी रखते हैं। यात्रियों को काकपिट में जाने की अनुमति नहीं होती है।

यात्रियों के लिए अनेक सीटें होती हैं। प्रत्येक सीट पर एक बैल्ट होती है जिससे यात्री हवाई जहाज के ऊपर जाते या नीचे आते समय या बुरे मौसम में अपने-आपको सीट से बाँध लेते हैं। बैल्ट बाँध लेने से यात्री सुरक्षित रहता है। समाचार-पत्र व पत्रिकाएँ रखने का भी स्थान होता है। कंबल, छोटे बेग व सामान रखने का स्थान सीटों के ऊपर बने शैल्फों पर होता है। हवाई जहाज के पीछे के भाग में छोटा सामान

चित्र 19 (ख). हवाई जहाज के अंदर का भाग— धड़ का भीतरी दृश्य



रखने का स्थान और शौचालय होते हैं। काकपिट से हवाई जहाज़ की पूँछ तक के भाग को 'फ़्यूज़लाज या धड़' कहते हैं। धड़ के निचले भाग में यात्रियों का सामान रखा जाता है। काकपिट से हवाई जहाज़ के अन्य भागों की ओर अनेक तारें जाती हैं जो यात्रियों को दिखाई नहीं देतीं।

ईंधन का भंडार पंखों में होता है। लड़ाकू विमानों में मिसाइल, बम और अधिक ईंधन भंडार भी पंखों के साथ लगाए जाते हैं।

ज्यों-ज्यों नए किस्म के हवाई जहाज़ बनेंगे, तुम इनमें नए परिवर्तन देख सकोगे। मुझे पूरा विश्वास है कि तुम्हारी आधुनिक हवाई जहाज़ों को देखने और उनके बारे में जानने की रुचि बढ़ती जाएगी।

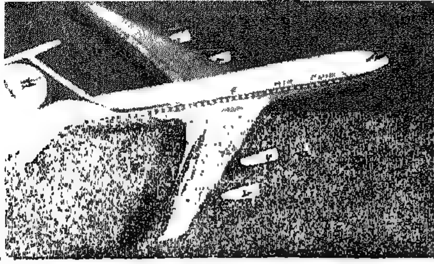
6 □ □ □ □ भारत में उड़ान

तुम सब यह जानना चाहोगे कि भारत में हवाई जहाज़ उड़ने कब शुरू हुए। करीब पचास वर्ष पहले भारत में उड़ान का आरंभ हुआ। धीरे-धीरे हमारे देश के लोगों की रुचि उड़ान में बढ़ने लगी। करीब चालीस वर्ष पहले कराची में पहला फ्लाइंग क्लब खोला गया था। उस समय कराची भारत में ही था। दूसरा क्लब कलकत्ते में खोला गया था। क्लबों के खुलने से लोगों की रुचि उड़ान में बढ़ने लगी और क्लबों की संख्या बढ़ने लगी। भारत में अनेक नए क्लब खोले गए। इनमें से कुछ बंबई, दिल्ली और मद्रास में थे।

करीब 35 वर्ष पहले भारत में हवाई यात्रा भी नियमानुसार शुरू हुई। पहले कुछ कंपनियाँ थीं जिनके अपने हवाई जहाज़ थे। ये कंपनियाँ हवाई जहाज़ उड़ाती और हवाई यातायात का काम करती थीं। आज़ादी के छः वर्ष बाद 1953 में सरकार ने इन कंपनियों को सरकारी बनाकर एक बड़ी कंपनी बनाई जिसे इंडियन एयर लाइन्स कार्पोरेशन या संक्षिप्त में आई० ए० कहते हैं। इसी समय विदेशों को जाने वाले विमानों की कंपनी को भी परिवर्तित करके एयर इंडिया इंटरनेशनल या एयर-इंडिया का नाम दिया गया। तुमने एयर इंडिया के विज्ञापन में 'महाराजा' के चित्र को देखा ही होगा।

एयर इंडिया के हवाई जहाज़ विदेशों को जाते हैं। एयर इंडिया सदा सबसे नए, बड़े और तेज़ गति के हवाई जहाज़ खरीदता है। आजकल बोइंग 707 और बोइंग 747 हवाई जहाज़ एयर इंडिया द्वारा उपयोग में लाए जा रहे हैं।

इंडियन एयर लाइन्स कार्पोरेशन भी अच्छे हवाई जहाज खरीदने का प्रयत्न करते हैं। आजकल इंडियन एयर लाइन्स कैरवेल, वाइकाउंट, फोकर फ्रेन्डशिप, HS-748

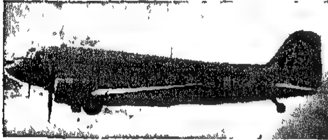


चित्र 20 (क). बोइंग 707

एयर इंडिया द्वारा
प्रयुक्त कुछ हवाई जहाज



चित्र 20 (ख). बोइंग 747

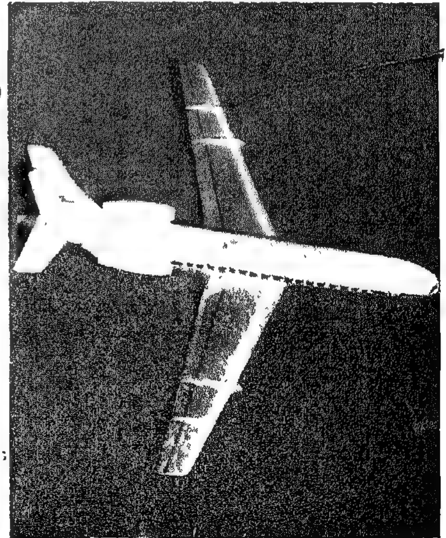


चित्र 21 (क). डकोटा

इंडियन एयर लाइन्स द्वारा
प्रयुक्त कुछ हवाई जहाज

चित्र 21 (ख). फोकर फ्रेन्डशिप





चित्र 21 (ग). कैरवेल

और डकोटा उड़ाते हैं। डकोटा अब अधिक काम में नहीं लाए जाते और इनकी जगह HS-748 उपयोग में लाया जाता है। HS-748 कानपुर में बनाए जाते हैं।

तुम्हें हवाई अडडे और हवाई जहाज़ के कर्मचारियों के बारे में पता है। इनके अतिरिक्त असैनिक उड़ान या सिविल उड़ान की देखभाल के लिए भी एक व्यक्ति होता है। उस व्यक्ति को महानिदेशक, नागरिक उड्डयन (डायरेक्टर जनरल, सिविल एविएशन) कहते हैं। इसके नीचे अनेक अधिकारी होते हैं जो भिन्न-भिन्न कार्यालयों में काम करते हैं। वह भारत के सब हवाई अड्डों की देखभाल करते हैं। इनके कर्मचारी हवाई जहाज़ और यंत्रों का निरीक्षण करते हैं। निरीक्षण करने के बाद जब वह उसे उड़ान के लिए ठीक पाते हैं तभी हवाई जहाज़ उड़ाया जा सकता है।

तुममें से कुछ बच्चों ने इंडियन एयर लाइन्स के हवाई जहाज़ों में यात्रा की होगी, या उन्हें हवाई अड्डे पर देखा होगा या उनके चित्र देखे होंगे।

भारत में भारतीय वायु सेना द्वारा भी बहुत उड़ानें की जाती हैं। जिस समय भारत में हवाई यात्रा नियम के अनुसार शुरू हुई, करीब उसी समय भारत पर शासन करती हुई ब्रिटिश सरकार ने एक समिति नियुक्त की। जवाहरलाल नेहरू के पिता मोतीलाल नेहरू भी इस समिति के सदस्य थे। इस समिति का एक सुझाव था कि भारत में वायु सेना की स्थापना होनी चाहिए। इन सुझावों को मानने के करीब चार वर्ष बाद कुछ भारतीयों को रायल एयर फोर्स कॉलेज में शिक्षा पाने के लिए इंग्लैंड भेजा गया। ये भारत में वायु सेना के पहले चालक थे। साथ-साथ वायु सेना के जवानों की शिक्षा भी भारत में प्रारंभ हो गई। आज़ादी के चौदह वर्ष पहले 1 अप्रैल, 1933 को भारतीय वायु सेना की स्थापना हुई थी। तुम्हें यह जानकर हैरानी होगी कि जब वायु सेना की स्थापना हुई थी, तब इसमें केवल छः अफसर और नौ जवान थे। वायु सेना के जवानों को 'वायु सैनिक' कहते हैं। ब्रिटेन की रायल एयर फोर्स ने भारत की बहुत सहायता की। छः वर्षों में अफसरों की संख्या छः से बढ़कर सोलह हो गई और वायु सैनिकों की संख्या 268 हो गई। यद्यपि बहुत लोग वायु सेना में भरती नहीं हुए फिर भी शिक्षा जारी रही। इस वायु सेना का लक्ष्य भारत के समुद्री तटों की रक्षा करना था। 'वापती' (Wapitis) हवाई जहाज़ उस समय प्रयोग में लाए जाते थे। इन हवाई जहाज़ों को कलकत्ता, मद्रास, बंबई, कोचिन और कराची में रखा जाता था।

वायु सेना की स्थापना के छः वर्ष बाद द्वितीय महायुद्ध सितंबर, 1939 में आरंभ हुआ। हमारी वायुसेना के अफ़सर रायल एयर फोर्स के साथ बर्मा में जापानियों के विरुद्ध लड़े। अनेक भारतीय अफ़सरों को इस युद्ध में वीरता के लिए पुरस्कार भी मिले।

इस युद्ध के दौरान और बाद में हमारी वायु सेना की भी प्रगति होती रही। हवाई जहाज़ों की संख्या बढ़ाई गई। अफ़सरों और सैनिकों की संख्या बढ़ने लगी।

जैसा कि तुम सबको पता ही होगा 15 अगस्त, सन् 1947 को हमें आज़ादी मिली। हमारा देश दो भागों—भारत तथा पाकिस्तान में बँट गया। भारत की छोटी-सी वायु सेना का भी विभाजन हो गया। पंजाब और सिंध में स्थित वायु सेना के कार्यालय पाकिस्तान में चले गए। इसी तरह कुछ हवाई जहाज़ भारत को भी मिले। जो अफ़सर और सैनिक भारतीय वायु सेना में रहना चाहते थे, वहीं रहे। देश विभाजन के फलस्वरूप पाकिस्तान में रहने वाले हिन्दुओं को भारत में लाना था। वायु सेना द्वारा भी कुछ लोग भारत में लाए गए। भारत में आने वाले बहुत-से लोगों की रक्षा भी वायु सेना ने ही की।

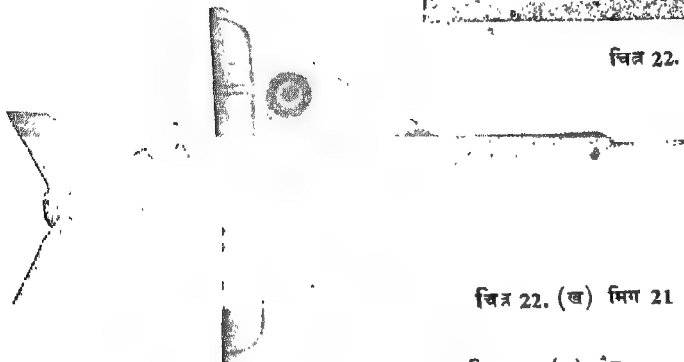
देश के विभाजन के तुरंत बाद पाकिस्तान ने कश्मीर पर आक्रमण कर दिया। वायु सेना ने यदि सहायता न की होती तो हमारी फौजें श्रीनगर और लेह में समय पर नहीं पहुँच पाती। वायु सेना ने सैनिकों, खाद्य सामान, युद्ध सामग्री और अस्त्र-शस्त्र ले जाने और दुश्मन पर हवाई हमला करके युद्ध जीतने में स्थल सेना की सहायता की।

देश विभाजन के बाद वायु सेना में परिवर्तन होने लगे। शिक्षण के नए प्रशिक्षण केन्द्र खोले गए। वायु सेना को आधुनिक बनाने के लिए अधिक सामान खरीदे गए। नए हवाई जहाज़ फ्रांस, इंग्लैंड, अमरीका और रूस से खरीदे गए। बाढ़ के समय भी वायु सेना ने अनेक प्रकार से सहायता की। खाद्य सामग्री और अन्य सामान उन्होंने हवाई जहाजों द्वारा दूर-दूर स्थानों पर गिराए जहाँ अन्य मार्गों द्वारा पहुँचना कठिन था।

भारत में निर्मित
कुछ हवाई जहाज़



चित्र 22. (क) HF-24



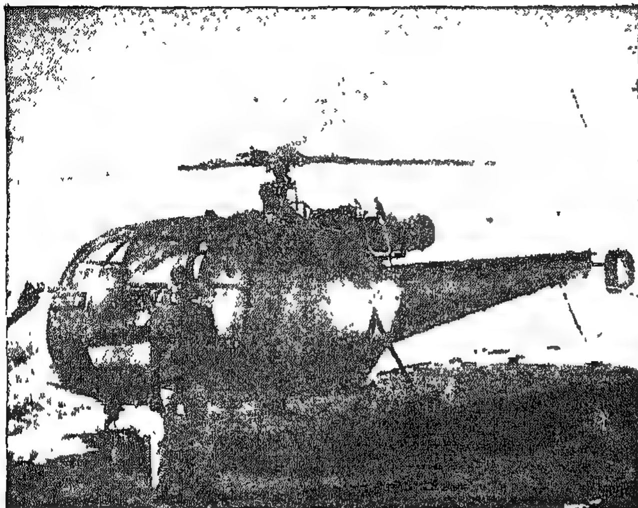
चित्र 22. (ख) मिग 21

चित्र 22. (ग) नैट





चित्र 22. (घ)
प्रशिक्षण विमान



चित्र 23. भारत में निर्मित हैलिकोप्टर

तुम्हें यह जानकर खुशी होगी कि अब भारत में हवाई जहाज़ बनाए जाते हैं। यह हवाई जहाज़ बंगलौर, कानपुर और नासिक में बनते हैं। नैट, HF-24 लड़ाकू बममार विमान, मिग 21 लड़ाकू, HS-748 सामान वाहक विमान, पुष्पक, कृषक, HJT-16 ट्रेनर और ऐलुएट हैलिकोप्टर भारतीय वायु सेना के पास हैं।

स्वतंत्रता प्राप्त करने के बाद भारत को चीन और पाकिस्तान से युद्ध लड़ने पड़े। चीन की लड़ाई में वायु सेना ने खाद्य सामग्री और सेना को कठिन जगहों पर ले जाने और पहुँचाने में सहायता की। पाकिस्तान युद्ध में भारतीय वायु सेना को पाकिस्तानी वायु सेना से लड़ना पड़ा।

हमारी वायु सेना ने इस युद्ध में अनेक कौशल दिखाए। इन युद्धों के बाद से हमने अनुभव किया कि वायु सेना को और सुदृढ़ बनाना चाहिए। हमने नए-नए प्रक्षेपास्त्र, हवाई जहाज़ खरीदे, अफ़सरों और वायु सैनिकों के प्रशिक्षण में सुधार किए। इनसे भी अधिक अन्य सुधारों का भी प्रयत्न किया जा रहा है।

7 □ □ □ □ भारतीय वायु सेना

तुमने अभी पढ़ा है कि भारतीय वायु सेना कब और कैसे शुरू हुई और किस प्रकार इसका विकास हुआ। तुम इसकी रचना व संगठन के बारे में भी जरूर जानना चाहोगे।

भारत के राष्ट्रपति वायु सेना के सर्वोच्च सेनापति हैं। राष्ट्रपति को युद्ध संबंधी सब नीति और योजनाओं के बारे में रक्षा मंत्री सलाह देते हैं। रक्षा मंत्री की सहायता रक्षा मंत्रालय के असैनिक कर्मचारी करते हैं। रक्षा मंत्रालय वायु सेनाध्यक्ष को आदेश देते हैं। वायु सेनाध्यक्ष वायु सेना के उच्चतम अधिकारी और वायु सेना के प्रधान हैं।

जिस तरह रक्षा मंत्री की सहायता के लिए रक्षा मंत्रालय में अनेक अधिकारी हैं, उसी प्रकार वायु सेनाध्यक्ष की सहायता के लिए वायु सेना मुख्यालय में अनेक अधिकारी हैं।

वायु सेना का प्रधान दफ्तर वायु सेना मुख्यालय या वायु सेना हैडक्वार्टर है जो नई दिल्ली में स्थित है। रक्षा का काम वायु सेना मुख्यालय द्वारा किया जाता है।

वायु सेना तीन प्रकार के कमानों में विभाजित है। कमान एक विशेष प्रकार का कार्य करता है। कमान में कार्य की योजना बनाई जाती है। वे अपने नीचे के स्टेशनों और यूनिटों के काम की देखभाल करते हैं। प्रत्येक कमान के नीचे अनेक स्टेशन होते हैं। स्टेशन द्वारा अधिकारियों के निवास, वेतन, स्वास्थ्य, चिकित्सा, परिवहन, साज-सामान, गोदाम इत्यादि की देखभाल की जाती है।

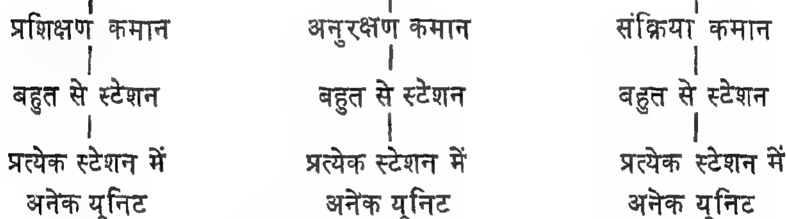
प्रत्येक स्टेशन में अनेक यूनिटें होती हैं। हर कमान, स्टेशन और यूनिट के कार्यभारी अफ़सर होते हैं। इन अफ़सरों के नीचे कई सैनिक और अफ़सर कार्य करते हैं।

रेखाचित्र की सहायता से तुम्हें यह बात जल्दी समझ में आ जाएगी।

भारत का राष्ट्रपति
(सर्वोच्च सेनापति)

रक्षा मंत्री
(रक्षा मंत्री को रक्षा मंत्रालय की सहायता मिलती है।)

वायु सेनाध्यक्ष
(वायु सेना मुख्यालय वायु सेनाध्यक्ष को सहायता देता है।)



प्रशिक्षण कमान का मुख्यालय बंगलौर में है। इस कमान के स्टेशन भिन्न-भिन्न शहरों में हैं। यह स्टेशन अफ़सरों और सैनिकों को अनेक प्रकार का प्रशिक्षण देता है। कमान के स्टेशनों द्वारा अफ़सरों को चालक, इंजीनियर, दिक्चालन निर्देशक, लेखाकार, प्रशासक, इत्यादि का प्रशिक्षण दिया जाता है। मैकेनिक, भंडार-रक्षक क्लर्क आदि बनने के लिए सैनिक प्रशिक्षण दिया जाता है।

अनुरक्षण कमान का मुख्यालय नागपुर में है। इस कमान के स्टेशन हवाई जहाज़, शस्त्रास्त्र, कपड़े, बंदूकें इत्यादि की देखभाल, संभरण और भंडारों के जिम्मेदार होते हैं।

तीन संक्रिया कमान हैं—पश्चिमी, पर्वी और केन्द्रीय। देश की सुरक्षा का काम यही तीन कमानें करती हैं। ये तीन संक्रिया कमान अपने क्षेत्र की रक्षा के लिए जिम्मेदार हैं। यह कार्य प्रत्येक कमान के स्टेशनों को दिया जाता है। प्रत्येक स्टेशन पर

अनेक यूनिटें होती हैं। जिन यूनिटों में हवाई जहाज़ होते हैं, उन्हें 'स्क्वाड्रन' कहते हैं। प्रत्येक स्क्वाड्रन में एक ही प्रकार के हवाई जहाज़ होते हैं। इन हवाई जहाजों को उड़ाने के लिए चालक होते हैं। इंजीनियर, अन्य अफ़सर और सैनिक चालकों की सहायता करते हैं। युद्ध के समय जरूरत के अनुसार स्क्वाड्रन एक जगह से दूसरी जगह ले जाए जाते हैं। इन कमानों में कुछ मिसाइल स्टेशन भी हैं। ये मिसाइलें रक्षा के लिए काम में लाई जाती हैं।

वायु सेना मख्यालय स्वयं ही कुछ कार्यों की योजना बनाते हैं व आज्ञा देते हैं। इसके बारे में तुम्हें आगे चलकर बताया जाएगा। तुम्हें आगे पढ़कर मालूम होगा कि वायु सेना को अन्य दो सेनाओं के साथ मिलकर काम करना पड़ता है। कुछ कार्यालय ऐसे हैं जहाँ स्थल सेना, नौसेना और वायु सेना के अफ़सर मिल कर काम करते हैं।

8 □ □ □ □ वायु सेना में भरती होने का तरीका

तुममें से शायद सभी यह जानते होंगे कि भारतीय वायु सेना में केवल भारतीय नागरिक ही भरती हो सकते हैं। जो भारतीय नागरिक वायु सेना में शामिल होना चाहते हैं उन्हें एक प्रार्थना-पत्र भेजना पड़ता है। नियुक्ति होने के पहले एक नियुक्ति समिति (सेलेक्शन बोर्ड) उनकी परीक्षा लेता है व बाद में साक्षात्कार (Interview) लेता है। भारत में ऐसी कई जगह नियुक्ति समितियाँ हैं। इस परीक्षा व साक्षात्कार में उत्तीर्ण होने के बाद उन्हें प्रशिक्षण के लिए यूनिट में भेजा जाता है। मैंने तुम्हें पहले ही इन प्रशिक्षण यूनिटों के बारे में बता दिया है।

भारतीय वायु सेना में दो प्रकार के लोग काम करते हैं—अफ़सर और वायु सैनिक। वायु सैनिक, स्थल सेना के और नौसेना के जवान समान होते हैं। अपने काम के अनुसार उन्हें पाँच दलों में बाँटा जाता है। कठिन परिश्रम से वह अपने दल को धीरे-धीरे सुधार सकते है। एक विशेष व्यवस्था द्वारा वह कुछ समय के बाद एक विशेष परीक्षा को पास करने के बाद अफ़सर बन सकते हैं।

वायु सैनिक के चुनाव को 'भरती' कहते हैं। यह भरती भिन्न-भिन्न भरती केन्द्रों में होती है। पहले चार दलों की भरती के लिए मैट्रिक पास होना आवश्यक है। इन दलों के वायु सैनिक तकनीकी, अर्धतकनीकी और अतकनीकी काम करते हैं।

चयन होने के बाद सबको बंगलौर, मद्रास या बेलगाँव में प्रशिक्षण दिया जाता है। प्रशिक्षण के बाद उन्हें भिन्न-भिन्न यूनिटों में काम के लिए भेज दिया जाता है।

वायु सेना के अफसर भी अनेक शाखाओं में बाँटे जाते हैं। एक शाखा को फ्लाइंग ब्रांच (फ्लाइंग शाखा) कहते हैं। इस शाखा के अफ़सर हवाई जहाज़ उड़ाने का कार्य करते हैं। यह चालक या दिक्चालक निर्देशक होते हैं। अन्य शाखाओं के अफ़सर

अधिकतर भूमि पर ही काम करते हैं। ये शाखाएँ एरोनाटिक इंजीनियर शाखा, लोजोस्टिक शाखा, प्रशासन शाखा, शिक्षा शाखा, मौसम विज्ञान शाखा और चिकित्सा शाखा हैं। इन सभी को भू-ड्यूटी शाखा या 'ग्राऊंड ड्यूटी' शाखा भी कहते हैं।

चालक और दिक्‌चालक निर्देशक वनने के लिए नवयुवकों को संघ लोक सेवा आयोग (यूनियन पब्लिक सर्विस कमीशन) नई दिल्ली को प्रार्थना पत्र भेजना पड़ता है। यह कार्यालय अनेक प्रकार के ऊँचे सरकारी पदों के लिए चयन करता है। संघ लोक सेवा आयोग की परीक्षा में सफल होने के वाद वायु सेना के किसी एक चयन (सेलेक्शन) केन्द्र द्‌वारा परीक्षा ली जाती है। इसमें सफलता पाने पर कड़ी डाक्टरी जाँच होती है। सफल युवकों को पूना में स्थित राष्ट्रीय रक्षा अकादमी में भेज दिया जाता है। यहाँ उन्हें तीन वर्ष तक प्रशिक्षण दिया जाता है।

इस प्रशिक्षण के वाद उड़ान की शिक्षा पाने के लिए युवकों को अन्य उड़ान प्रशिक्षण स्कूलों में भेजा जाता है। उड़ान-शिक्षा प्राप्त करने पर वह भिन्न-भिन्न यूनिटों में भेजे जाते हैं। जिन युवकों ने स्कूलों में 'राष्ट्रीय कैडेट कोर' कोर्स में सफलता पाई हो, वे चुनाव के वाद सीधे उड़ान प्रशिक्षण के लिए जाते हैं।

भू-ड्यूटी के अफ़सर वह हैं जो कॉलिजों में से इंजीनियरिंग, डाक्टरी, अध्यापक प्रशिक्षण, लेखाकार इत्यादि की शिक्षा प्राप्त कर चुके हों। यह एक विशेष नियुक्ति समिति (सेलेक्शन वोर्ड) द्‌वारा चुने जाते हैं। इन्हें भी डाक्टरी जाँच के वाद प्रशिक्षण दिया जाता है। वाद में उन्हें यूनिटों में भेज दिया जाता है।

अब तुम सबको मालूम हो गया है कि अफ़सरों और वायु सैनिकों को यूनिटों और स्टेशनों में काम करने से पहले उन्हें प्रशिक्षण दिया जाता है।

9 □ □ □ □ वायु सेना के अफ़सर

तुम सबको मालूम है कि जैसे तुम बड़े होने पर और अधिक पढ़ते हो और तुम एक कक्षा से दूसरी ऊँची कक्षा में जाते हो, उसी तरह से वायु सेना में अफ़सर और सैनिक भी एक पद से दूसरे ऊँचे पद को प्राप्त करते हैं।

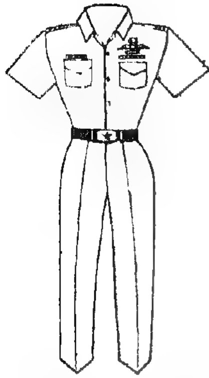
अफ़सरों का सबसे छोटा पद पायलट आफ़िसर का होता है। उसके बाद के ऊँचे पद इस क्रम में हैं— फ्लाइंग आफ़िसर, फ्लाइट लेफ्टिनेन्ट, स्क्वाड्रन लीडर, विंग कमांडर, ग्रुप कैप्टेन, एयर कमोडोर, एयर वाइस मार्शल, एयर मार्शल, और एयर चीफ मार्शल। इनके बारे में तुम्हें आगे बहुत कुछ मालूम होगा।

वायु सैनिकों का सबसे छोटा पद एयर क्राफ्टमैन-2 होता है। आगे ऊँचे पद इस क्रम में हैं—एयर क्राफ्टमैन-1, लीडिंग एयर क्राफ्टमैन, कार्पोरल, सार्जेंट, फ्लाइट सारजैंट, वारंट आफ़िसर और मास्टर वारंट आफ़िसर।

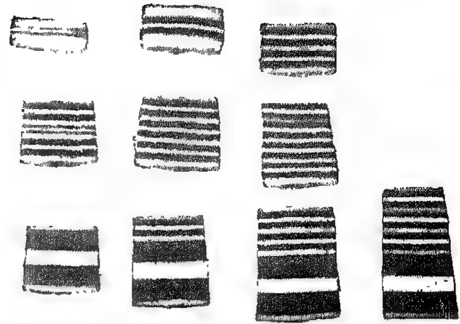
तुम्हें यह जानकर हैरानी होगी कि अफ़सर और सैनिक की वर्दी से उनके पद और शाखा का पता लगता है। अगले पृष्ठ पर दिए गए चित्रों से तुम्हें यह पता लगेगा।

तुमने शायद अफ़सरों और वायु सैनिकों की वर्दियों पर रंगीन फीते या फीतों पर लगे पदक देखे होंगे। कभी-कभी अफ़सरों व वायु सैनिकों को पुरस्कार दिए जाते हैं। ये पुरस्कार और पदक युद्ध में भाग लेने, शूर-वीरता या अन्य अच्छे काम करने के लिए दिए जाते हैं। समारोहों के अवसर पर ये पदक सीने के बाईं तरफ पहने जाते हैं।

वायु सेना का झंडा हल्के नीले रंग का होता है। ऊपरी भाग के बाईं ओर भारतीय तिरंगा झंडा और दाईं ओर उसी रंग के वृत्त होते हैं। तिरंगे झंडे के रंग के वृत्तों को 'राऊंडल' कहते हैं।



चित्र 24. अफ़सरों की वर्दी

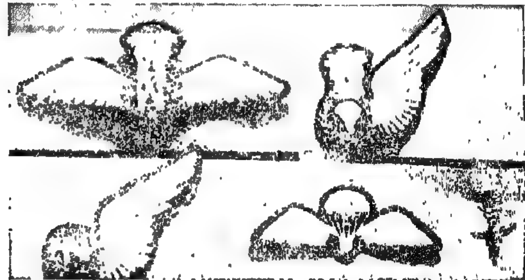


चित्र 26 (क). अफ़सरों की रैंक के बैज

पहली पंक्ति (बाएँ से दाहिने) : पायलट आफ़िसर, फ्लाइंग आफ़िसर, फ्लाइट लैफ्टिनैंट

दूसरी पंक्ति (बाएँ से दाहिने) : स्क्वाड्रन लीडर, विंग कमांडर, ग्रुप कैप्टेन

तीसरी पंक्ति (बाएँ से दाहिने) : एयर कमोडोर, एयर वाइस मार्शल, एयर मार्शल, एयर चीफ़ मार्शल



चित्र 26 (ख). अफ़सरों के बैज

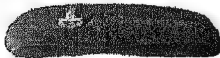
पहली पंक्ति (बाएँ से दाहिने) : पायलट, छाता-कूद प्रशिक्षक (ये बैज जेब व रिबनों के ऊपर लगते हैं)

दूसरी पंक्ति (बाएँ से दाहिने) : मार्गदर्शक (फ्लाइट इंजीनियरों के बैज में अक्षर 'N' की जगह अक्षर 'E'; सिगनलरों के बैज में अक्षर 'S' और तोपचियों के बैज में अक्षर 'G' होता है।) छाता सैनिक (यह बैज वर्दी की दाहिनी बाँह पर होता है)



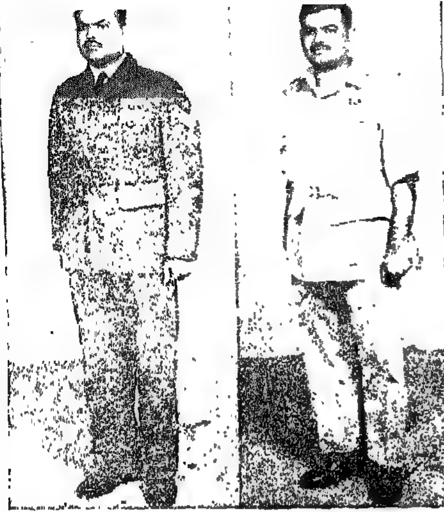




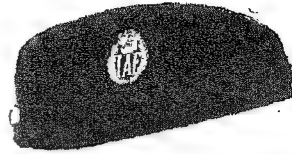


चित्र 25. अफ़सरों की टोपियाँ

विंग कमांडर तक के पदों के अफ़सरों की छज्जेदार टोपी (पीक कैप), ग्रुप कैप्टन की छज्जेदार टोपी, विंग कमांडर तक के पदों के अफ़सरों की तिरछी टोपी, ग्रुप कैप्टेन और उससे ऊँचे पदों के अफ़सरों की तिरछी टोपी।



चित्र 27 (क)(ख). वायु सैनिकों की सर्दियों व गर्मियों की वर्दियाँ



चित्र 28 (क). फ्लाइट सार्जेन्ट्स और उससे नीचे के वायु सैनिकों की टोपी



चित्र 28 (ख). वारंट आफ़िसर और मास्टर वारंट आफ़िसर की टोपी



WARRANT OFFICER

चित्र 29 (क). वारंट आफ़िसर की रैंक का बैज, जो वर्दी के कंधे पर होता है। इसमें 'गरूड़' नहीं होता।

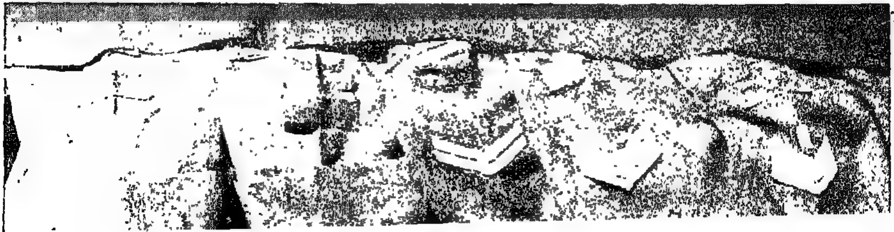


MASTER WO

चित्र 29 (ख). मास्टर वारंट आफ़िसर की रैंक का बैज। यह भी वर्दी के कंधे पर होता है और इसमें 'गरूड़' नहीं होता।

चित्र 29. वायु सैनिकों के रैंक के बैज वर्दी की बाँहों पर दिखाए जाते हैं।

बाएँ से दाहिने : एयर क्राफ्टमैन 1 और 2, लीडिंग एयर क्राफ्ट्समैन, कार्पोरल, सार्जेन्ट और फ्लाइट सार्जेन्ट (इन सब वायु सैनिकों के रैंक के बैज के ऊपर 'गरूड़' चिह्न भी होता है)

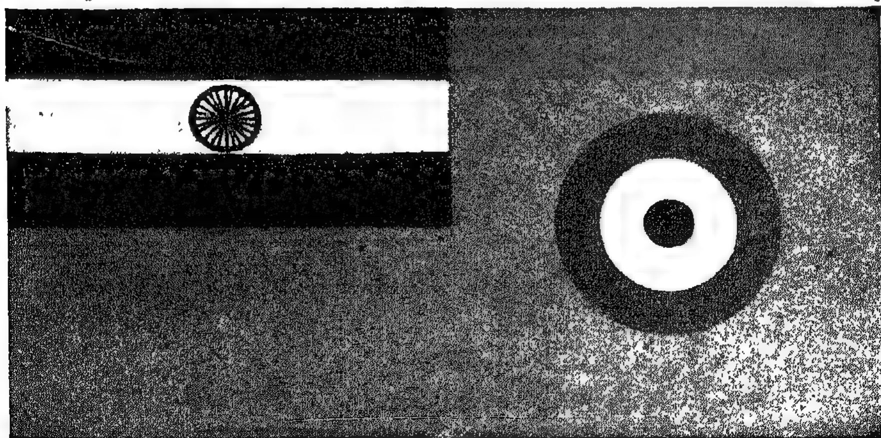




चित्र 30 रिबन और पदक (ये वर्दी की बाईं जेब से जरा ऊपर लगाए जाते है)

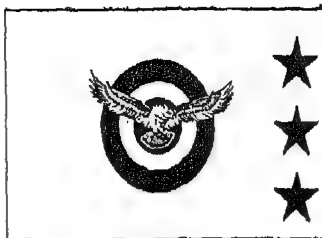
स्क्वाड्रन लीडर के पद से ऊँचे सभी अफ़सर स्टेशन अधिकारी अपनी मोटरों पर अपना झंडा फहरा सकते हैं। हर पद के लिए अलग झंडा होता है। प्रत्येक स्टेशन पर भारतीय वायु सेना और कमान अधिकारी का झंडा उड़ाया जाता है।

तुमने शायद विशेष पट्टी वाली वायु सेना की मोटरें देखी होंगी। इन पट्टियों पर सितारे बने होते हैं। इन सितारों से मोटर में यात्रा करने वाले अफ़सर के पद का



चित्र 31. भारतीय वायु सेना का ध्वज





चित्र 32. स्क्वाड्रन लीडर से ऊपर के अफ़सरों के ध्वज

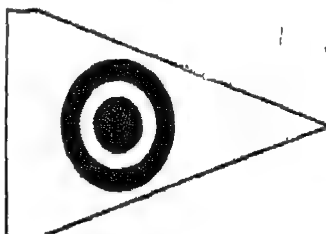




पहली पंक्ति (बाएँ से दाहिने): एयर चीफ मार्शल, एयर मार्शल

दूसरी पंक्ति (बाएँ से दाहिने): एयर वाइस मार्शल, एयर कमोडोर





तीसरी पंक्ति (बाएँ से दाहिने): ग्रुप कैप्टेन, विंग कमांडर

पता चलता है। चार सितारे एयर चीफ मार्शल के, तीन सितारे एयर मार्शल के, दो सितारे एयर वाइस मार्शल के और एक सितारा एयर कमोडोर का होता है।

अब जब भी तुम वायु सेना के अफ़सर या सैनिक को देखोगे, वायु सेना के झंडे व स्टेशन या मोटरों पर सितारों वाली पट्टी को देखोगे, तो तुम्हें पहले से कहीं अधिक जानकारी होगी।

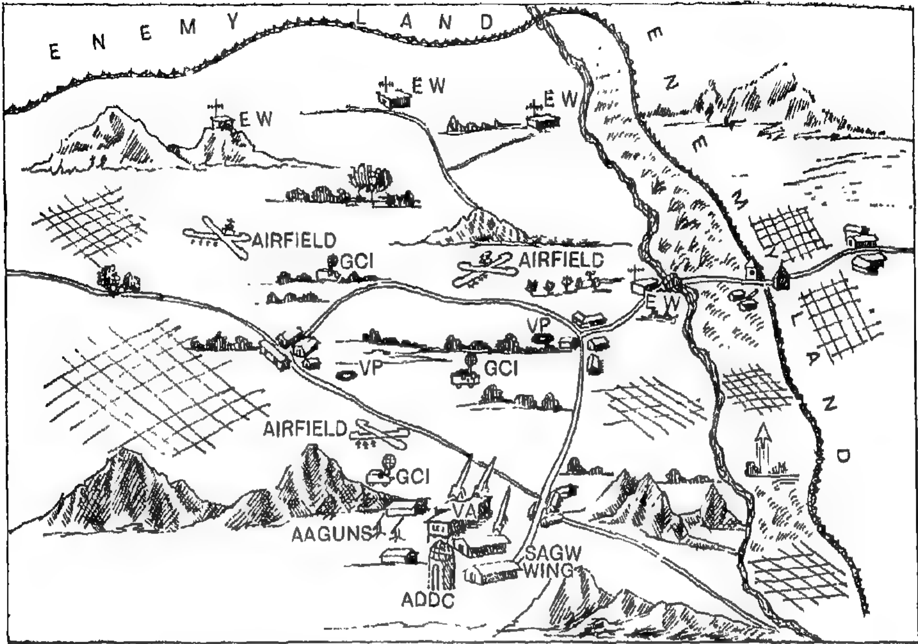
10 □ □ □ □ भारतीय वायुसेना का काम–1

तुम यह सोच रहे होगे कि ये हज़ारों अफ़सर और सैनिक वायु सेना में क्या करते है।

इससे पहले कि यह बताऊँ, तुम सब यह तो जानते ही हो कि प्रत्येक देश को शत्रु से अपनी रक्षा करनी चाहिए। जिस तरह से तुम्हारा मकान ही तुम्हारा घर है, उसी प्रकार से प्रत्येक देश वहाँ के निवासियों का घर होता है। तुम किसी को भी अपने घर में घुसने और उस पर अधिकार नहीं करने दोगे। ऐसा करने पर पहले तुम उसे रोकोगे, और अगर वह नहीं मानेगा तो उससे लड़ाई करके बाहर निकाल दोगे। उसे बाहर निकालने के लिए तुम्हें बलवान होना चाहिए।

इसी प्रकार देश की भी रक्षा करनी पड़ती है। इस रक्षा का कुछ काम वायु सेना करती है। इस काम को अच्छी तरह से करने के लिए वायु सेना को बलवान होना चाहिए।

वायु सेना का सबसे प्रमुख कार्य वायु हमले से देश की रक्षा करना है। तुम सब जानते हो कि भारत एक बहुत बड़ा देश है। इस देश के हर एक कोने की रक्षा करना मुमकिन नहीं है। किसी भी देश की वायु सेना प्रत्येक भाग की रक्षा नहीं कर सकती। कोई भी शत्रु तुम्हारे पूरे देश को नष्ट नहीं करना चाहेगा। शत्रु वही स्थान नष्ट करेगा जिससे उसे कोई लाभ हो। पाठशाला, गाँव, अस्पताल व खेतों को नष्ट करने से शत्रु को कोई लाभ नहीं होगा, परंतु कारखानों, हवाई अड्डों, वायु सेना या स्थल सेना के मुख्यालयों, रेलवे स्टेशनों इत्यादि को नष्ट करने से शत्रु को युद्ध जीतने में सहायता मिलेगी। यही कारण है कि केवल जरूरी स्थानों की ही



चित्र 33. शत्रु भूमि के निकट का एक क्षेत्र।
EW : पूर्व चेतावनी स्टेशन, GCI : भू–नियंत्रित अंतग्रहण स्टेशन/स्थान
ADDC : एयर डिफेंस डायरेक्शन सेंटर
SAGW : स्थल-वायु नियंत्रित शस्त्र स्कंध या प्रक्षेपास्त्र स्कंध
VP : वाइटल पाइंट्स—महत्वपूर्ण क्षेत्र, AA Guns : विमान–भेदी तोपें

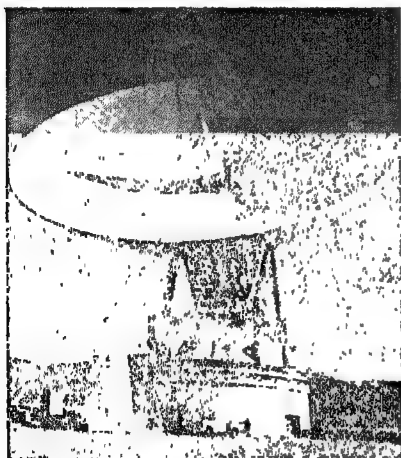
रक्षा वायु सेना द्वारा की जाती है। इन महत्वपूर्ण स्थानों को 'वाइटल पाइंट' या महत्वपूर्ण स्थल कहते है।

इन महत्वपूर्ण स्थानों की रक्षा करने के लिए वायु सेना शत्रु के हमलावर हवाई अड्डों और जहाज़ों को नष्ट करती है। शत्रु के देश में स्थित हवाई जहाज़ों को भी नष्ट किया जाता है ताकि हमला करने के लिये उनके हवाई जहाज़ों की संख्या कम हो जाए।

यह काम सही ढंग से करने के लिए वायु सेना में अच्छे अफ़सर व सैनिक, आधुनिक साधन और अच्छी व्यवस्था होनी चाहिए।

मैं तुम्हें पहले ही बता चुकी हूँ कि हमारी वायु सेना में तीन संक्रिया कमान हैं जो देश की रक्षा का कार्य करते हैं। इन कमानों के स्टेशनों के नीचे देश विशेष भागों में बँटा है जिनकी वह रक्षा करते हैं। शत्रु-देश के समीप की जगहों में अधिक सुरक्षा की व्यवस्था होती है। पृष्ठ 42 के चित्र को ध्यान से देखकर महत्वपूर्ण स्थानों को ढूँढो। कारखाने, स्टेशन, पुल और वायु सेना कार्यालय रक्षा के महत्वपूर्ण स्थान हैं। शत्रु इनको नष्ट करने के लिए अपने हवाई जहाज़ भेजता है। इन स्थानों के नष्ट होने से पहले ही हमारी वायु सेना को शत्रु के हवाई जहाज़ों को नष्ट करना जरूरी है। आजकल हवाई जहाज़ बहुत तेज़ी से उड़ते हैं इसलिए उनके आने का पता जल्दी से जल्दी लग जाना आवश्यक है।

हमारे पास एक विशेष प्रकार का यंत्र है जिससे हवाई जहाज़ के आने से पहले ही उसका पता लग जाता है। तुम शायद अभी इसके बारे में समझ न सकोगे परन्तु बाजू में दिए चित्र से तुम्हें उसकी रूप-रेखा का पता लगेगा। इस यंत्र को 'रेडार' कहते हैं।

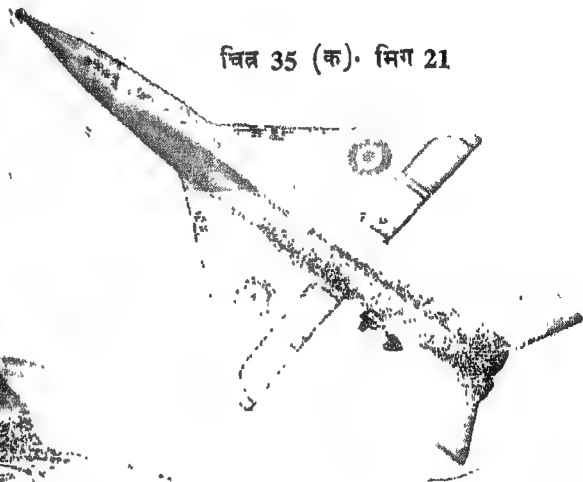


चित्र 34. रेडार

चित्र 33 में तुम छोटे-छोटे अनेक रेडार देख सकते हो। इन्हें पूर्व चेतावनी स्टेशन कहते हैं। ये स्टेशन सीमा के बहुत करीब होते हैं। हमारे देश की ओर आते हुए शत्रु के हवाई जहाज़ों की सूचना हमें पहले ही इन रेडारों द्वारा मिल जाती है। शत्रु के हवाई जहाज़ों के आने का पता चलते ही यह सूचना बड़े दफ़्तर को दे दी जाती है जिसे हवाई रक्षा निर्देशन केन्द्र या एयर डिफेंस डायरेक्शन सेन्टर कहते हैं।

सीमा के समीप रेलवे स्टेशन व गाँवों के लोग भी आने वाले हवाई जहाजों के बारे में ए० डी० डी० सी० को बताते है। सूचना मिलने पर ए० डी० डी० सी० के अफ़सर यह पता लगाते हैं कि ये हवाई जहाज शत्रु के हैं अथवा नहीं। यह एक विशेष प्रकार के रेडार से मालूम होता है। पूर्व चेतावनी स्टेशन और ए० डी० डी० सी० के बीच कई रेडार होते हैं। यह रेडार बहुत जरूरी हैं विशेषकर जब शत्रु पूर्व चेतावनी स्टेशन के रेडार को नष्ट कर दे।

कुछ प्रतिरक्षा विमान



चित्र 35 (क)· मिग 21



चित्र 35 (ख)· हंटर



चित्र 35 (ग)· नैट

शत्रु हवाई जहाजों के आने की सूचना मिलने पर ए०डी०डी०सी० हमारे हवाई जहाज़ों को उन्हें मार गिराने की आज्ञा देता है । भारतीय रक्षात्मक हवाई जहाज मिग-21, नेट, हंटर हैं। इन रक्षात्मक हवाई जहाजों के चालक शत्रु के हवाई जहाज़ों को दूरी के कारण देख नहीं सकते। इसलिए ठीक जगह पर जाने के लिए उन्हें सहायता की जरूरत पड़ती है। यह सहायता ए० डी० डी० सी० के कर्मचारियों द्वारा दी जाती है। रडार का सहायता से ए० डी० डी० सी० के कर्मचारियों को अपने व शत्रुओं के हवाई जहाजों के बारे में पता रहता है। वह दो तरफ़ से रेडियो द्वारा चालकों को सही दिशा व अन्य आदेश दे सकते हैं।

रक्षात्मक हवाई जहाजों के साथ-साथ हवामार तोपें और मिसाइल भी शत्रु के हवाई जहाज़ों को गिराने के काम में लाए जाते हैं । मिसाइल स्टेशन या हवामार तोपों के यूनिटों को ए०डी०डी०सी० से ही आज्ञा मिलती है।

हवामार तोपें वे विशेष तोपें हैं जो नीचे उड़ते हुए हवाई जहाजों को मार गिराती हैं। यह तोपें महत्वपूर्ण स्थानों के पास लगी होती हैं। बहुत तेज़ उड़ते हुए हवाई जहाज़ों को मिसाइल मार गिरा सकती है।

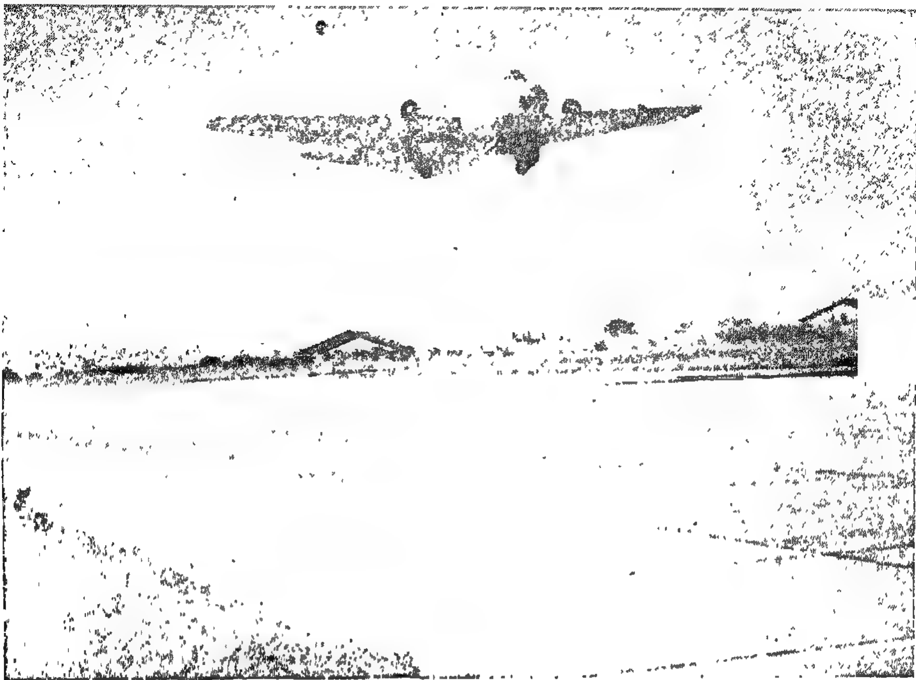
11 □ □ □ □ भारतीय वायु सेना का काम - 2

युद्ध के समय हम अपने महत्वपूर्ण स्थानों की रक्षा करते हैं और साथ-साथ शत्रु के महत्वपूर्ण स्थानों को नष्ट करते हैं। नष्ट करने के लिए उन स्थानों की जानकारी जरूरी है। वायु सेना के हवाई जहाज शत्रु देश के कुछ स्थानों के ऊपर से उड़ते हैं। चालक उन महत्वपूर्ण स्थानों को देखता है और उनकी तस्वीर भी ले लेता है। इसे 'टोह' कहते हैं।

स्थानों का पता लगने पर हवाई जहाज इन पर बम गिराकर नष्ट करने के लिए भेजे जाते हैं। इसे 'गोलाबारी' कहते हैं। पुल, कारखाने, हवाई अड्डे व पोत-प्रांगण जैसे दूर के स्थानों के नष्ट करने से युद्ध में एकदम सहायता नहीं मिलती, परंतु इनका प्रभाव युद्ध पर कुछ समय बाद पड़ता है। जिस प्रकार रेलवे स्टेशन के नष्ट होने पर युद्ध क्षेत्र में सेना, लड़ाई का साज़-सामान इत्यादि ले जाने में कठिनाई होने लगती है, उसी तरह कारखाने के नष्ट होने से यंत्रों के बनने में देरी होने लगती है और शत्रु को लड़ने में कठिनाई होने लगती है।

इस गोलाबारी की योजना वायु सेना मुख्यालय द्वारा बनाई जाती है। कमानों द्वारा बममार हवाई जहाजों के यूनिटों को आज्ञा दी जाती है।

युद्ध के समय स्थल सेना की लड़ाई देशों की सीमाओं के पास ही होती है। युद्ध स्थल के समीप महत्वपूर्ण स्थान वही है जिनसे सेना को सहायता मिल सके। शत्रु सेना की संख्या, अस्त्र-शस्त्र और सेना के मार्ग के बारे में जानना जरूरी है। यह जानकारी स्थल सेना स्वयं इकट्ठा करती है, परंतु हवाई टोह के लिए वायु सेना की सहायता आवश्यक है। कुछ स्थानों को नष्ट करने के लिए वायु सेना के हवाई जहाज़ बम और राकेट गिराने के लिए भेजे जाते हैं।



चित्र 36. कैनबरा बमवर्षक विमान

जब स्थल सेना शत्रु के कुछ स्थानों को नष्ट नहीं कर पाती और न ही अपनी रक्षा कर पाती है तब स्थल सेना वायु सेना से सहायता लेती है। यह सहायता शत्रु की अधिक सेना व उनके अच्छे शस्त्रों के कारण भी ली जा सकती है। वायु सेना के हवाई जहाज़ बम गिराकर और पंखों पर लगी तोपों का प्रयोग करके शत्रु सेना को नष्ट कर देते हैं।

तोपखाने की छोटी तोप का गोला बीस मील की दूरी तक ही मार कर सकता है। तोप चालक उस गोले को गिरते हुए नहीं देख सकता अतः अपने निशाने को ठीक नहीं साध सकता। छोटी तोपों के निशाने को ठीक करने के लिए सेना-सैनिकों को ऊँचे पेड़ों, पहाड़ों पर खड़ा कर दिया जाता है या छोटे हवाई जहाज़ों में ऊपर भेजा जाता है। ये सैनिक तोप चालक को निशाना ठीक करने के लिए आदेश देते हैं। परंतु बड़ी तोपों का निशाना इन सैनिकों द्वारा ठीक नहीं किया जा सकता।

पेड़ पर या पहाड़ पर बैठे यह सैनिक इतनी दूरी तक नहीं देख सकते और छोटे हवाई जहाज़ शत्रु के देश में दूर तक नहीं जा सकते क्योंकि शत्रु उन्हें मार गिरा सकते हैं। वायु सेना के चालक जैट हवाई जहाज़ों में उड़कर तोप के निशाने को ठीक करने में सहायता देते हैं। चालक रेडियो द्वारा निशाने ठीक करने का आदेश देते हैं।

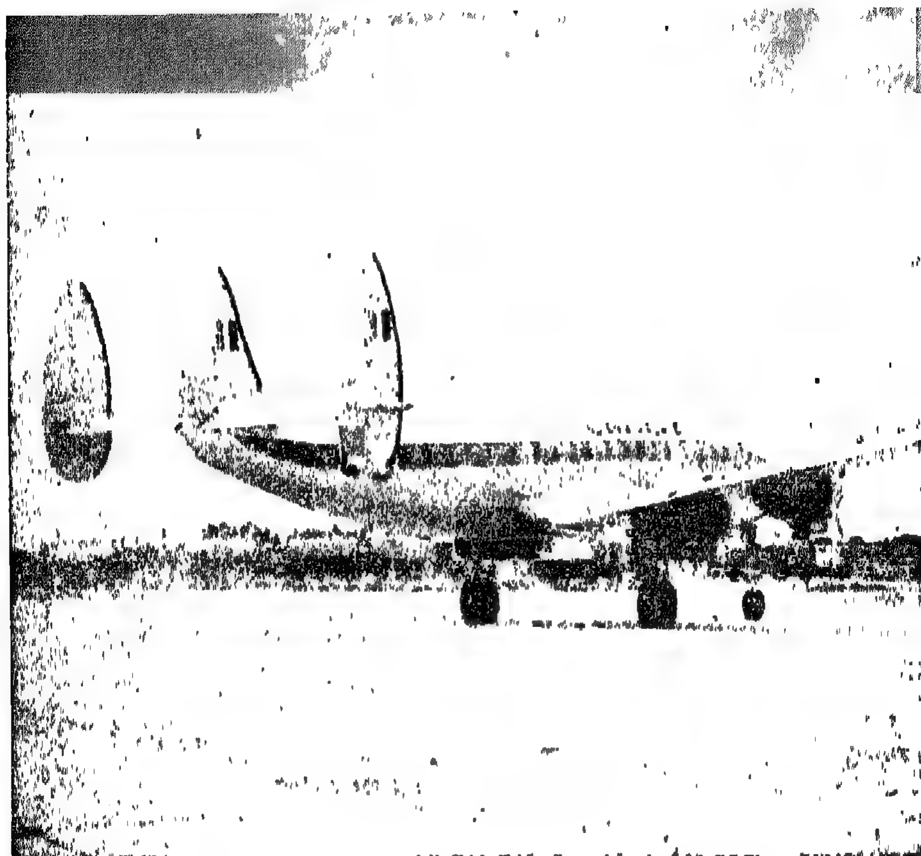
स्थल सेना की सहायता के लिए अनेक प्रकार के विमानों का प्रयोग किया जाता है। भारत में हवाई टोह के लिए कैनबरा, मिस्टयर या SU-7 प्रयोग में लाए जाते हैं। जमीन के स्थानों को नष्ट करने के लिए हंटर, SU-7 और भारत में बने HF-24 प्रयोग में लाए जाते हैं।

वायु सेना और स्थल सेना के अफ़सरों को मिलजुल कर बहुत काम करने पड़ते हैं। वायु सेना के कुछ अफ़सर स्थल सेना की यूनिटों में काम करते हैं और कुछ स्थल सेना के अफ़सर वायु सेना की यूनिटों में। ऐसा करने से योजनाएँ बनाने और उनको कार्यान्वित करने का कार्य शीघ्रता से किया जा सकता है। चालक हमेशा तैयार रहते हैं और आज्ञा मिलते ही अपना कार्य पूर्ण करने के लिए चल पड़ते हैं। कार्य करने के बाद वह वापिस आकर अपने कार्य की रिपोर्ट देते हैं ताकि आगे के कार्य की आज्ञा दी जा सके।

वायु सेना नौसैना को भी सहायता देती है। नौसैना की सहायता के लिए समुद्री वायु सेना है जिसके पास विशेष तरह के हवाई जहाज हैं। यह विशेष हवाई जहाज विपत्ति में पड़े नौसैना के जहाज़ों और नावों को खोज कर उन्हें प्राण रक्षा का सामान गिरा देते हैं। नौ सेना को इस सहायता के लिए अधिक समय तक उड़ने वाले हवाई जहाज़ों की जरूरत होती है। भारत में 'सुपर कांस्टिलेशन' हवाई जहाज़ इस काम के लिए उपयोग में लाए जाते हैं।

युद्ध के समय वायु सेना के हवाई जहाज़ नौसेना के समुद्री जहाजों, बंदरगाहों इत्यादि की रक्षा करते हैं। हवाई जहाज़ शत्रु के जहाज़ों और बंदरगाहों को नष्ट करने में सहायता देते हैं। शत्रु के जहाज़ों में ले जाते हुए साज-सामान को भी वह नष्ट करते हैं।

काम को सफलतापूर्वक पूरा करने के लिए नौसेना और वायु सेना को मिलकर काम करना पड़ता है।



चित्र 37. सुपर कांस्टिलेशन

अब तुम्हें मालूम हो गया होगा कि वायु सेना, नौसेना और स्थल सेना को सहायता देती है। युद्ध जीतने के लिए युद्ध में तीनों सेनाएँ मिलकर काम करती हैं।

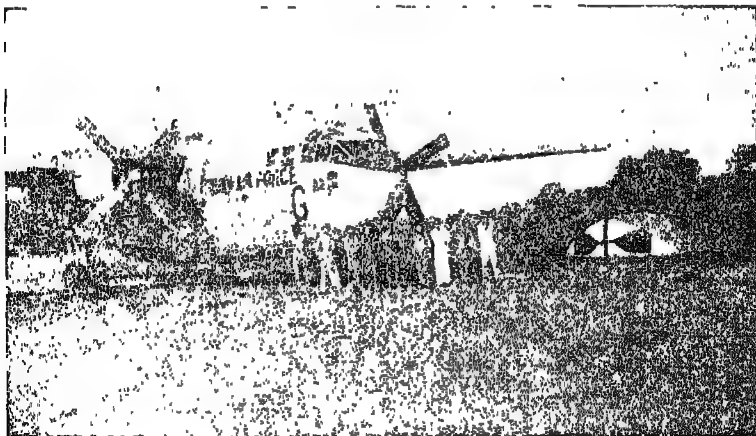
12 □ □ □ □ युद्ध और शांति में हवाई जहाज़ों का प्रयोग

तुममें से बहुतों ने नेफा, कश्मीर के पर्वतों, लद्दाख के बर्फीले पहाड़ों और राजस्थान के मरुस्थलों के बारे में सुना होगा। हमें इन स्थानों पर भी लड़ाईयों के लिए तैयार रहना चाहिए। ऐसा हो सकता है कि युद्ध के समय इन स्थानों पर साज-सामग्री ले जाने के लिए उचित रेल या सड़क की व्यवस्था न हो। ऐसी स्थिति में साज-सामग्री वायु सेना के हवाई जहाज़ों द्वारा ही ले जायी जाती है।

कई ऐसे भी स्थान होते हैं जहाँ साज-सामग्री रेल या सड़क द्वारा नहीं भेजी जा सकती और यदि भेजी भी जा सकती है तो वहाँ बहुत समय लगता है। ऐसी परिस्थिति में वायु सेना के विमान सहायता करते हैं।

शान्ति के दिनों में भी वायु सेना के हवाई जहाज़ों में सामग्री लाना-लेजाना बहुत मँहगा पड़ता है इसलिए इनका प्रयोग तभी होता है जब आवश्यक सामग्री को

चित्र 38 (क). भारतीय वायुसेना का एक परिवहन विमान





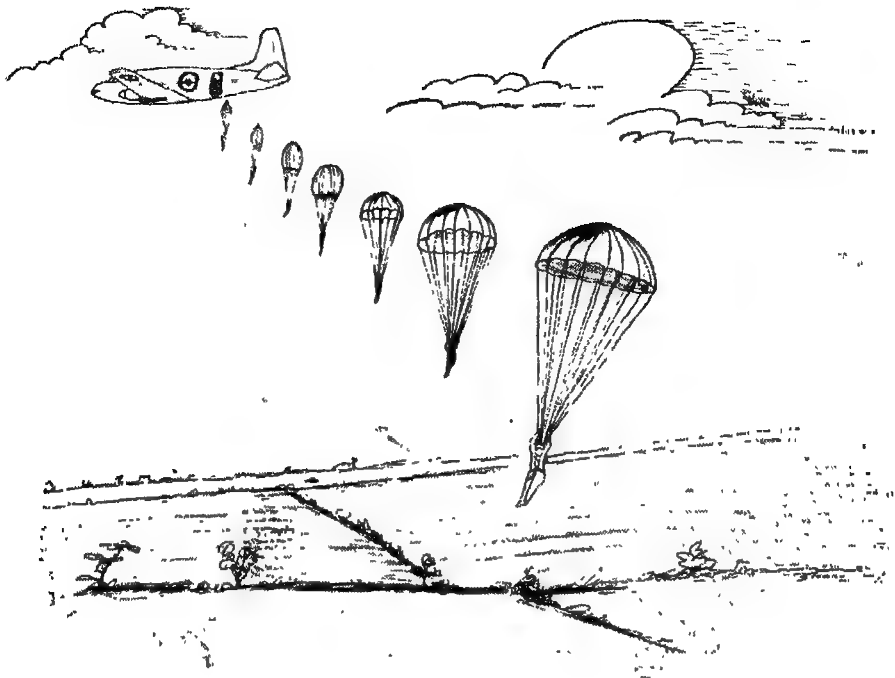
चित्र 38 (ख). भारतीय वायुसेना का 'कैरिबू' परिवहन विमान

रेल, सड़क या पानी द्वारा ले जाने में अधिक समय लगता हो अथवा कोई अन्य कठिनाई हो।

इस काम के लिए विशेष परिवहन वायुयान होते हैं। यह हवाई जहाज़ वायु सेना के अफ़सरों द्वारा उड़ाए जाते हैं और वे ही इनकी देखभाल करते हैं। वे तीनों सेनाओं के काम में लाए जाते हैं। कभी-कभी विशेष समय में ये ही असैनिकों के काम में भी आते हैं।

राष्ट्रपति, प्रधान मंत्री व अन्य बड़े-बड़े अफ़सर जरूरी सरकारी काम के लिए वायु सेना के ही हवाई जहाज़ों पर यात्रा करते हैं।

तुमने भूकंप और बाढ़ों के बारे में सुना होगा। वायु सेना के परिवहन हवाई जहाज़ पीड़ित लोगों के लिए खाद्य सामग्री, कपड़े, कंबल, दवाइयाँ इत्यादि पहुँचाने



चित्र 39. छाता-सैनिक विमान से कूद रहे हैं

में भी सहायता करते हैं। ये इसके अतिरिक्त संकट बचाव तथा अन्य सहायता का कार्य भी करते हैं।

मनुष्य और साज-सामग्री ले जाने के साथ-साथ वायु सेना के हवाई जहाज़ सामग्री को उस जगह पर गिराते हैं जहाँ हवाई जहाज जमीन पर नहीं उतर सकते। इनके द्वारा छाताधारी सैनिकों को भी विशेष जगहों पर उतारा जाता है।

युद्ध में कभी-कभी यह जरूरी हो जाता है कि कुछ लोगों को जासूसी काम और महत्वपूर्ण स्थानों का पता लगाने और उनको नष्ट करने के लिए भेजना पड़ता है। कुछ लोग शत्रु देश में भेजे जाते हैं जो उसी देश के लोगों के समान रहकर उनके जन-



चित्र 40. विमान से नीचे की भूमि का दृश्य

साधारण लोगों से मेल-जोल बढ़ाते हैं और उन्हें अपनी सरकार के विरुद्ध आवाज़ उठाने व सरकार के प्रति विद्रोह करने के लिए उकसाते हैं। ऐसे लोग हवाई जहाज़ द्वारा सुनसान जगहों में उतारे जाते हैं। समय-समय पर उनके लिए पैसे, कपड़े, सामान और खाना इत्यादि भी गिराया जाता है। यह काम वायु के परिवहन हवाई जहाज़ करते हैं।

वायु सेना के हवाई जहाज़ केवल युद्ध करने और दुश्मन सम्पत्ति को नष्ट ही करने नहीं वरन् बीमार और जख्मी लोगों को युद्ध क्षेत्र से अस्पतालों तक ले जाने के लिए भी काम में लाए जाते हैं। इस कार्य के लिए हैलिकौप्टर या परिवहन हवाई जहाज ही प्रयोग में लाए जाते हैं।

संक्षिप्त में मैंने तुम्हें वायु सेना के कार्यों के बारे में बताया है। ये काम किस प्रकार किये जाते हैं यह भी बताया है। तुमने वायु सेना के कर्मचारियों और उनके काम के बारे में भी पढ़ा है। अगर अब भी तुम्हारे मन में कोई प्रश्न उठता है तो तुम्हें कुछ और इंतजार करना पड़ेगा। बड़े होने पर तुम उन्हें समझ सकोगे।

नन्हें बच्चों, मुझे पूरी आशा है कि तुम्हें इस पुस्तक को पढ़ने में आनंद आया होगा और जो बातें तुमने सीखी हैं उनसे तुम्हारा ज्ञान बढ़ेगा और अपने देश की वायु सेना पर तुम्हें गर्व होगा।

2.4.1 LOCATION OF NFE CENTRES:

The present study reveals that mostly the NFE centres are located in the remotest rural, tribal, hilly and desert regions of the State and are run in the small residential huts of the Instructors, which are devoid of proper ventilation, adequate accommodation, and lighting arrangements. Moreover, no facilities for drinking water, toilets etc. are provided there. Some of the NFE centres are run on the open platforms without any shade where NFE children have to suffer a lot in the scorching heat of the sun and during heavey rains. Under the aforesaid uncongenial atmosphere the teaching-learning activities for the heterogeneous age group of about 25 NFE children cannot be organised properly.

2.4.2 UNTIMELY SUPPLY OF INSTRUCTIONAL AND OTHER TEACHING MATERIAL:

The Instructional Material consisting of Five Text books, slates, pencils, exercise books etc. are supplied to the NFE children free of cost. The complicated and time consuming procedure of supplying the text books by the SIERT, Rajasthan through the Rajasthan State Text Book Board (RSTB), District Education Officer and Supervisors puts hinderances

in the timely supply of the aforesaid material. Consequently the Instructors face a lot of problems in the curriculum transaction and in the organisation of the teaching-learning activities properly.

2.4.3 Further the slates, pencils, chalk-sticks, exercise books to the NFE children and other teaching devices and appliances such as black-boards, chalk-sticks, maps, charts, hurricane lamps etc. provided by the BDO's through the respective supervisors do not reach the NFE centres in time. The non-availability of the Instructional and teaching material in proper time puts hinderances in the successful organisation of teaching-learning activities. Moreover, the learners do not get motivated in absence of instructional material and dropout causing a great deal of wastage.

2.4.4 LACK OF PROPER LIGHTING ARRANGEMENTS:

In Rajasthan most of the NFE centres are run in the night. The Instructors of such NFE centres face a lot of serious problems in the organisation of teaching-learning activities in absence of proper lighting arrangements. Mostly the electricity is not supplied in time and the dim light of the inferior quality of hurricane lamps puts hinderances in the

....60/-

effective curriculum transaction.

2.4.5 LACK OF LITERATURE ON TEACHING METHODOLOGY, EVALUATION DEVICES ETC.

The present study reveals that besides prescribed five Text books no other literature, such as curriculum, Training manual, Teacher's guide, Book on unitwise tests, an introduction to NFE programme etc. devised by SIERT, Rajasthan and developed by the Directorate of Adult Education, Rajasthan is supplied to the NFE centres. Consequently in absence of the aforesaid literature on Teaching methodology and evaluation material the Instructors possessing an inadequate academic qualification of middle standard and insufficient inservice training of only six days' duration face great problems in the curriculum transaction due to ignorance in adopting proper methods for teaching different subjects.

2.4.6 THE LOW AND POOR ATTENDANCE OF THE NFE CHILDREN:

The most prevalent and acute problem of low attendance of the NFE children hampers the successful organisation of teaching-learning activities and develops an apathetic attitude among other regular children towards studies, who dropout in between without completing the course prescribed for primary level.

The present study reveals that the reasons for the low and irregular attendance of the NFE children is mostly due to lack of adequate incentives in the form of midday meals, free uniforms to poor, needy, socially and economically backward children of SC/ST and girls of all communities, provision of scholarships, Award of prizes for outstanding performances, lack of recreational arrangements and co-curricular activities, non-supply of games material etc.

2.5.1 SUGGESTIONS FOR SOLVING THE PROBLEMS FACED IN IN CURRICULUM TRANSACTION:

Involvement of the community in the location of the NFE centres, providing adequate accommodation, supply of drinking water and other facilities for NFE children would facilitate the successful organisation of teaching learning activities at the NFE centre and solve the problems faced in curriculum transaction.

2.5.2 Duration of the in-service training for instructors, supervisors and other NFE functionaries should be increased from six days to fifteen days.

2.5.3 Refresher course should be organised for six days' duration every year to orient Instructors with the latest trends and Tendencies of NFE programme

and to solve the problems cropping up during the course of curriculum transaction.

2.5.4 Adequate arrangement for providing incentives in the form of midday meals, free uniform, scholarships, award of prizes for outstanding performances etc. should be made to motivate the NFE children to maintain punctuality, regularity, continuity and retention at the NFE centres till the entire course prescribed for primary level is completed to develop desired competencies at par with formal education.

2.5.5 Adequate recreational arrangement, adequate supply of games material, proper organisation of Co-curricular activities will motivate NFE children in maintaining retention at the NFE centres and will encourage the other non-enrolled children to seek admission to the NFE centre for getting education.

2.5.6 Remuneration of NFE Instructors should be increased from Rs.105/- p.m. to Rs. 300/- p.m. to encourage and motivate them to bring efficiency in the effective curriculum transaction.

2.5.7 The present study reveals that the dichotomy of management hampers the effective and frequent supervision of the NFE centres. Hence the Administrative control of the NFE programme should be withdrawn from the development department.

2.5.8 Adequate transport facilities should be provided to the supervisors to conduct effective supervision of the NFE centres more frequently.

2.6 CONCLUSION:

1. Under qualified Instructors, mostly (75%) middle pass with inadequate and insufficient training (Professional qualification) face a lot of problems in organising teaching learning activities at NFE centres.
2. Inadequate knowledge of teaching methodology, lack of adequate academic and pedagogical guidance from supervisory staff, lack of literature on teaching methodology create problems and difficulties in teaching various subjects and ultimately hampers the successful curriculum transaction.
3. The course contents in the prescribed Text Books is too heavy to be covered up within the prescribed period.

4. The difficult areas of course contents beyond the comprehension of NFE children hamper the teaching-learning activities.
5. Untimely supply of Instructional and other teaching material puts hinderances in the successful organisation of teaching-learning activities.
6. Lack of evaluation device (Book on unitwise tests) hampers the diagnostic testing and remedial teaching and framing of teaching learning strategies.
7. Low and poor attendance of NFE children puts hinderances in the successful organisation of effective curriculum transaction.
8. Uncogenial atmosphere of NFE centres (improper lighting arrangement, lack of proper accommodation and other facilities pertaining to drinking water, toilet etc. createes problems in the successful organisation of teaching learning activities.
9. Lack of effective and frequent supervision and inadequate academic and pedagogical guidance by supervisors and other

administrative staff creates difficulties and problems before NFE Instructors.

10. Lack of community involvement and participation hampers enrolment of depriveds and dropouts and un-enrolled children and enrolled children do not get motivated in maintaining punctuality, regularity and continuity at NFE centres and creates the problems of dropouts and wastage.

SUGGESTIONS FOR IMPROVEMENTS:

1. Duration of in-service training should be increased from six to fifteen days.

2. Refresher course should be organised for six days duration every year.

3. Incentives in the form of midday meals, free uniform, scholarships, award of prizes will motivate NFE children and attract non-enrolled children to seek admission.

4. Remuneration of Instructors should be increased from Rs. 105/- to Rs. 300/- P.M.

CHAPTER- II

ROLE OF INSTRUCTOR IN THE CURRICULUM TRANSACTION

1.1 The successful implementation of any educational programme depends upon the sincerity, dedication, devotion and excellent and efficient performances of the persons working at the grass-root level in the field. Hence for the successful implementation of Non-Formal Education programme an Instructor working at the grass-root level in the field (i.e. over-all incharge of the NFE centre) plays an important and pivotal role.

NEED FOR PROPER PLACEMENT OF INSTRUCTOR:

2.1 The proper placement of adequately qualified and trained Instructor belonging to the same village where the centre is located motivates the parents and community leaders and encourages the children to join NFE centre. Establishing rapport with the children the local instructor imparts education suiting to their needs and life situations.

2.2 The present study reveals that cent percent Instructors working on the sample NFE centres belong to the same locality. 90% of them are males

and only 10% Instructors are females. None of them belongs to weaker section of the society i.e. Scheduled Caste and Scheduled Tribe. 80% of them have received In-service training sponsored by the State Institute of Educational Research and Training (SIERT) Rajasthan, Udaipur and organised by the District Education Officers concerned. Only 18% of the whole lot of male and female Instructors are untrained.

QUALIFICATIONS OF INSTRUCTORS (ACADEMIC AND PROFESSIONAL)

3.1 As regards the academic qualification of the Instructors of the sample, the study reveals that the majority of them i.e. 75% Instructors possess middle pass qualification, 20% of them are High School pass and only i.e. 5% (Male and Female) Instructors are graduates. The following Table explains this:

TABLE NO. I

3.2 Distribution of Instructors according to their Training (Professional)qualifications:

Characteristics	Male				Female			
	SC/ST		Other		SC/ST		Other	
	Local	Non-Local	Local No.%	Non Local	Local	Non Loc-al %	Local No%	Non Local
Trained	-	-	31 78%	-	-	-	2 5%	-
Untrained	-	-	3 13%	-	-	-	2 5%	-

.......68/-

TABLE NO. 2

3.3 Distribution of Instructors according to their Academic qualifications:

Characteristcis	Male			Female		
	SC/ST	Others No.	Others Percentage	SC/ST	Others No.	Others Percentage
1. Graduate		1	3%		1	3%
2. High School/ H.S.S.		8	20%		-	-
3. Middle Pass		27	68%		3	8%

3.4 The biggest bottleneck which puts hinderance in the successful implementation of the centrally sponsored scheme of NFE programme is the problem of enrolment of girls and their retention.

As a matter of fact the contribution of female instructors working in the NFE centres may prove much more useful in the enrolment of girls at the NFE Centres. The above table reveals that only 10% of the instructors of the sample belong to female section.

...69/-

MAIN OCCUPATION OF THE INSTRUCTORS:

4.1 As regards the main occupations of the instructors the present study reveals that the majority of the instructors i.e. 68% earn their livelihood through Agriculture and Animal Husbandary. The main occupation of 15% instructors is business, service, labour, sheep tending and tailoring. The rest 18% have no source of income except the meagre amount they get as remuneration for working as instructors of NFE Centres. The following table explains this:

TABLE NO. 3

4.2 Distribution of Instructors according to their occupation:

Characteristics	NFE CENTRE INSTRUCTORS			
	Male		Female	
	No.	%	No.	%
1. Agriculture and Animal Husbandry	27	68%	-	-
2. Business	1	3%	-	-
3. Service	1	3%	-	-
4. Any other (Labour, Sheep Tending etc.)	3	8%	-	-

....70/-

CONTINUITY OF INSTRUCTORS AT THE NFE CENTRES

5.1 The duration of the period allotted for covering the entire course prescribed for primary level of NFE programme is two years. It is very encouraging to note that almost cent percent instructors continue staying at the NFE Centres for the period of two years and even beyond to cover up the course prescribed.

5.2 The present study reveals that the period of stay of 63% Instructors at the NFE Centres is one to two years; while 35% Instructors have been working at the NFE Centres for more than two years. Only 3% instructors have been staying for six months only. The following table explains this:

TABLE NO. 4

5.3 Distribution of Instructors on the basis of their period of stay at the NFE Centres:

Characteristics	Instructors			
	Male		Female	
	No.	%	No.	%
(a) Period of Stay for six months	1	3%	-	-
(b) Period of Stay for 1 to 2 years	22	55%	3	8%
(c) Period of Stay for more than 2 years	13	33%	1	3%

5.3.2 From the perusal of the aforesaid table it is quite evident that the period of stay at the NFE Centres of 97% instructors is 1 to 3 years; which is quite encouraging and bears the testimony to good involvement of instructors in the successful implementation of the programme.

INSTRUCTIONAL MATERIAL USED AT THE NFE CENTRES:

6.1 The Instructor is the key person for the successful transaction of the curriculum devised by the SIERT, Rajasthan and is covered in two years through the Five Text Books - Three on Language, Environmental Studies, Natural Sciences, SUPW and Health and Hygiene in integrated form and two on Mathematics in disciplinary approach.

6.2 Neither a work book nor a supplementary reader has been prescribed for the NFE programme.

6.3 Besides the aforesaid Text Books following instructional material has also been devised for the effective use and guidance of the instructors and other NFE functionaries:

1. Training Manual - Anoupcharik Shiksha Anudeshak Prashikshan Manjusha
2. Evaluation Material- Book on unitwise Tests for

....72/-

testing the knowledge, skill and competencies achieved by learners. - Anoupcharik Shiksha Ikai Paralkh Pustika

3. Teacher's Guide - Anoupcharik Shiksha Sandarshika

4. An Introduction to NFE Programme - Anoupcharik Shiksha Parchaiyka.

6.4 Out of the aforesaid instructional and teaching material only text books have been made available to the instructors at the NFE centres. Unfortunately no teacher's handbook has been devised in Rajasthan for the effective use and guidance of instructors. Further, it is very surprising that even the curriculum is not supplied to the NFE Centres.

TIME TAKEN FOR COVERING THE COURSE CONTAINED IN TEXT BOOKS

7.1.1 Although the definite duration of period has been allotted for covering the course contained in a particular text book; but according to the present study 93% instructors feel difficulty in covering the course within the prescribed period and take much more than allotted time.

...73/-

The following table explains this:

TABLE NO. 5

7.1.2 Distribution of Instructors on the basis of the time taken for the completion of the course contained in the text books.

Characteristics	INSTRUCTORS			
	Male		Female	
	No.	%	No.	%
1. Text Books take more than allotted time for completion	33	83%	4	10%
2. Text Books are completed in time	3	8%	-	-
3. Text Books take much less than allotted time	Nil	Nil	Nil	Nil

7.1.3 The study further reveals that in majority of cases no learner is allowed to take the Text Books at home. Hence it is not expected from them to read them (the Text Books) outside the NFE Centres to enhance the knowledge of the subject matter taught at the centre. This state of affairs hampers the development of the desired competencies of the learners. The following

Table explains this:

TABLE NO. 6

7.1.4 Distribution of Instructors on the basis of the permission given to the children to take the text books at home.

Characteristics	INSTRUCTORS			
	Male		Female	
	No.	%	No.	%
1. Instructors who allow children to take the text books at home	15	38%	1	3%
2. Who do not allow them to take the books at home	19	48%	3	8%
3. Instructors who have seen the NFE learners reading the text books outside the NFE centres	9	23%	-	-
4. Instructors who responded in negative	27	68%	4	10%

7.1.5 The aforesaid table reveals that majority of the Instructors i.e. 55% do not allow their children to take the books at home and 78% of the Instructors did never see the learners reading the text books anywhere else out-side the NFE Centre.

TEACHING METHODOLOGY

8.1 Through six days' short term training programme the instructors are acquainted with the various methods of teaching to be adopted for the effective teaching of different subjects. But in absence of proper and adequate pedagogical guidance from supervisory staff and readily available literature on teaching methodology i.e. Teacher's Guide, Training Monual etc. the instructors find it very difficult to adopt suitable method for teaching a particular subject and therefore, are compelled to adopt any traditional method.

8.2 The study reveals that while "Drill Method" is most popular for teaching mathematics among instructors, description, role play and lecture

...76/-

methods are commonly adopted for teaching language and social studies. Similarly for Natural Sciences demonstration and descriptive methods are very common. Learning by doing is mostly adopted for teaching SUPW. This is revealed by the following table:

TABLE NO. 7

8.2.1 Distribution of Instructors on the basis of the various methods adopted for teaching different subjects:

Methods of Teaching	Characteristics Subjects.	INSTRUCTORS			
		Male		Female	
		No.	%	No.	%
Drill	Language	14	35	1	3
	Mathematics	24	60	4	10
	Natural Science	2	5	-	-
	Social Studies	-	-	-	-
	SUPW	9	23	1	3
Role Play					
	Language	33	83	3	8
	Mathematics	4	10	-	-
	Natural Science	2	5	1	3
	Social Studies	10	25	2	5
	SUPW	-	-	-	-

...77/-

Lecture	Language	33	83	3	8
	Mathematics	9	23	-	-
	Natural Science	18	45	4	10
	Social Studies	25	63	4	10
	SUPW	8	20	3	8
Description					
	Language	27	73	4	5
	Mathematics	14	35	2	5
	Natural Science	24	60	3	8
	Social Studies	26	65	3	8
	SUPW	10	25	2	5
Demonstration					
	Language	5	13	2	5
	Mathematics	24	60	4	10
	Natural Science	20	50	4	10
	Social Studies	11	28	3	8
	SUPW	16	40	3	8
Learning by Doing					
	Language	5	13	2	5
	Mathematics	23	58	4	10
	Natural Science	16	40	4	10
	Social Studies	9	23	-	-
	SUPW	18	45	3	8

...78/-

8.2.2 It is quite evident from the aforesaid table that without proper guidance and non-availability of the literature on Teaching Methodology the instructors have to face several problems in teaching different subjects.

ORGANISATION OF TEACHING LEARNING ACTIVITIES AT NFE CENTRE

9.1 Another great problem faced by the instructors in the curriculum transaction is the organisation of teaching learning activities at the NFE Centres. Generally the NFE Centres are located in the rural area at the remotest corners of the hilly, desert and tribal region, where neither the adequate accommodation is provided nor proper seating and lighting arrangement for children exists. A very heterogeneous age group of 25 learners consisting of dropouts, entrants and mostly deprived of formal schooling, gets education under the supervision and guidance of single teacher.

9.2 The present study reveals that 28% instructors categorise the learners on the basis of their age, whereas 58% categories them according to their

level of competency while entering. The majority of the instructors i.e. 75% categorise them on the basis of competencies developed in different subjects.

9.2.1 The following table explains this:-

TABLE NO. 8

Distribution of instructors on the basis of the categorisation of the learners arranged for the organisation of teaching learning activities.

Characteristics	Instructors			
	Male		Female	
	No.	%	No.	%
CATEGORISATION OF LEARNERS				
1. On the basis of age	10	25%	1	3%
2. Level of competency while entering	21	53%	2	5%
3. Competency in different subjects	27	68%	3	8%
4. Any other	1	3%	-	-

ORGANISATION OF INSTRUCTIONAL MATERIAL:

10.1 The instructors have to face a lot of difficulties in the organisation of the instructional material at the NFE Centre single handed. The present study reveals that 88% instructors manage to impart the instructional material through monitor system, while 55% arrange the class through work assignments and 80% organise the instructional material on the basis of the group activity. The following Table explains this:

TABLE NO. 9

10.1.1 Distribution of instructors on the basis of the organisation of instructional materials.

Characteristics	Instructors			
	Male		Female	
	No.	%	No.	%
1. Monitor system	33	83	2	5
2. Work assignment	20	50	2	5
3. Group Activity	30	75	2	5

EVALUATION OF ACHIEVEMENTS OF LEARNERS:

11.1 From the perusal of the preceding chapter it is quite evident that there is no provision in the NFE programme for formal evaluation at primary level. But there is a provision for concurrent evaluation of the achievements of the learners at the initiation of the instructor, supervisor and the parents through the oral tests, observation and behavioural changes of the learners. Though SIERT, Rajasthan has devised a book on unitwise Tests - Anoupcharik Shiksha Ikai Parakh Pustika to assess the knowledge, skill and competencies developed by the learners after covering the contents of a particular unit for providing remedial teaching and framing teaching learning strategies by the Instructor. But no such book is made available to the Instructors at NFE Centres. Further, no system is prevalent for assessing the progress of the learners weekly, fortnighly or monthly. Moreover, no periodical test, quarterly, Half yearly or yearly examination, no standardized test, no public examination is organised at the primary level of the NFE programme. The present study

reveals that 63% instructors favour frequent evaluation of the scholastic achievements of the learners for remedial teaching, whereas 93% instructors find the frequent evaluation necessary for framing teaching learning strategies for further improvement. Only 28% instructors feel that it is necessary for maintaining only adequate records of the progress of learners.

The following Table explains this:

TABLE NO. 10

11.1.2 Distribution of Instructors on the basis their impressions about the frequent evaluation of the scholastic achievements of learners.

Characteristics	Instructors			
	Male		Female	
	No.	%	No.	%
1. For assessing the progress of learners	23	58%	2	5%
2. For framing teaching learning strategies for further improvement	33	83%	4	10%
3. For keeping records	10	25%	1	%

THE COMMUNITY PARTICIPATION AND INVOLVEMENT IN THE SUCCESSFUL IMPLEMENTATION OF NFE PROGRAMME

12.1 The present study reveals that the Instructors take all possible steps to ensure the community participation and involvement in the successful functioning of the NFE Centres by obtaining proper accommodation, facilities of drinking water, lighting arrangements etc. for NFE centres. The enlightened, enthusiastic, sincere and devoted instructors maintain constant contacts with the community leaders for seeking their cooperation in the enrolment of all the depriveds and dropout children and for their regularity, punctuality, continuity and retention at the NFE Centre till the completion of the entire course prescribed for primary level.

12.2 The present study reveals that 85% Instructors take positive steps for community participation and involvement in the successful implementation of the NFE Programme.

12.2.1 The following Table explains this:

TABLE NO. 11

Distribution of Instructors on the basis of their positive efforts and proper steps to ensure community participation

Characteristics		Instructors			
		Male		Female	
		No.	%	No.	%
1. Whether take proper steps to ensure community participation	Yes	30	75%	4	10%
2. - do-	No	3	8%	-	-

HELP EXTENDED BY THE ADMINISTRATION IN ORGANISING TEACHING-LEARNING ACTIVITIES:

13.1 The essential component of any educational programme is the academic input. Unless the mechanism for strong timely academic resource support is provided at various levels. The programme like NFE cannot succeed. Keeping in view the Government of Rajasthan has made the SIERT,

Udaipur responsible for providing academic support.

13.2 The SIERT, Rajasthan has devised the curriculum for NFE programme for primary level, which is used at all the NFE Centres of Rajasthan.

13.3 The Instructional material consisting of five text books and other essential and allied literature on teaching methodology, Teacher's guide, Training manual, Book on unitwise Test. An introduction to NFE programme has also been devised for the guidance and training of instructors, supervisors and other functionaries of NFE programme.

13.4 Besides the development of aforesaid literature the SIERT conducts research studies on various aspects of education for providing guidance to the field functionaries for future.

13.5 The inservice training programme for six days duration for instructors, supervisors, Asstt. Project Officers and other field functionaries of NFE programme is also organised by the SIERT from time to time.

...86/-

SUPPLY OF INSTRUCTIONAL MATERIAL TO THE NFE CENTRES:

14.1 The present study reveals that the instructional material consisting of Text Books, teaching aids, Black boards, chalk sticks, slates, pencils, Exercise books, maps, charts etc. are supplied to the NFE Centres by the administration.

14.2 It is very surprising to note that no teaching material such as curriculum, Teahher's guide, Training manual, Book on unit-wise tests, an introduction to NFE programme reaches the hands of instructors.

HELP EXPECTED FROM ADMINISTRATION FOR FACILITATING TEACHING-LEARNING ACTIVITIES:

15.1 From the perusal of the preceding chapter it is quite evident that the role of the instructor is significantly important at the grass root level for running the NFE centre very efficiently with the active cooperation of the community, effective and frequent academic and pedagogical guidance of the supervisors and other field of functionaries of the Administration. During the course of

curriculum transaction the instructor faces a great deal of problems and difficulties and expects their solution from the administration.

15.2 The present study reveals that the greatest problem faced by the instructor is the low and poor attendance of the learners and their poor retention till the completion of the prescribed course. 20% instructors expect from the administration certain incentives in the form of Midday meals, free uniform to the poors, provision for scholarships to the needy as well as to the girls, award of prizes for excellent and outstanding performances to the learners to motivate them to attend the NFE Centres maintaining regularity, punctuality, continuity and retention till the completion of the prescribed course.

15.3 25% instructors expect the timely supply of instructional material to the learners.

15.4 The study further reveals that 55% instructors have expressed their keen desire for the supply of the teaching literature consisting of curriculum, Teacher's guide, Training manual, Book on unitwise test, an introdu tion to NFE etc. to every NFE centre for the ready reference and effective guidance of the instructors.

....88/-

15.5 50% instructors expect from the administration for the supply of Audio visual aids for the effective organisation of teaching learning activities.

15.6 According to 10% instructors the timely supply of games material would enable them to provide facilities to the learners to play games regularly.

15.7 The instructors have further expressed their opinion for making suitable arrangement for recreation at the NFE centre to motivate learners to attend NFE centre regularly and to encourage the non-enrolled children to join the NFE centre.

15.8 28% instructors are of the opinion that the administration should make arrangement for suitable accommodation for running the NFE centre efficiently.

15.9. The study further reveals that 50% instructors have expressed their keen desire for providing frequent academic and pedagogical guidance by the supervisors and their effective and frequent supervision of the NFE Centres.

....89/-

15.10 25% instructors have suggested that the duration of period allotted for covering the Text Books should be increased. In their opinion the contents of the Text books are beyond the comprehension of learners and deserve modification according to the mental development of the children.

15.11 According to the present study 50% instructors have expressed their keen desire for increasing the period of Inservice training from six days to fifteen days and for organising refresher course for six days every year to solve their problems arising during the course of curriculum transaction and for acquainting them with latest devices and techniques of teaching.

15.11.1 The following Table explains:

TABLE NO. 12

Distribution of the instructors on the basis of their expectations from the administration.

Characteristics	Instructors			
	Male		Female	
	No.	%	No.	%
1. Incentive to children in the form of				
a) Midday meals				

.....90/-

b) Uniform free of cost				
c) Scholarships to needy				
d) Award of prizes for outstanding performances				
2. Timely supply of instructional material to children slates, pencils, text books etc.	9	23	1	3
3. Supply of games materials and arrangement for recreational activities	4	10	-	-
4. Adequate accommodation for running NFE programme alongwith proper lighting arrangement	7	18	-	-
5. Supply of Teaching material, Training Manual, Teacher's guide, curriculum evaluation tools etc.	20	50	2	5
6. Supply of Audio-visual Aids	3	8	-	-
7. Academic & pedagogical guidance and arrangement for refresher course. More frequency of supervision	18	45	2	5
8. Text books should be made easier and period allotted for coverage should be increased.	10	25	-	-

...91/-

TRAINING OF THE INSTRUCTORS:

From the perusal of the preceding chapters it is quite evident that the training programme is a pre-requisite condition for all the instructors, supervisors, Asstt. Project Officers and other functionaries of NFE programme. The State Institute of Educational Research and Training (SIERT) Rajasthan is the sponsoring agency for organising the training programmes for six days' duration on the basis of the training manual for instructors (Anoupcharik Shiksha Anudeshak Prashikshan Manjusha) which contains the detailed instructions, procedure, course content, Teaching methodology, evaluation techniques and the maintenance of Record at NFE centre. The training for instructors is organised at block level by the District Education Officer through teachers' trainers (Resource persons) who are amongst the supervisors, Assistant Project Officers and other senior, experienced and experts of NFE programme, who must have obtained the aforesaid training in accordance with the procedure laid down in training manual with certain modifications.

BACKGROUND OF TEACHER-TRAINERS:

16.1.2 As regards the teacher trainers involved in imparting training to NFE instructors of the sample the study reveals that all the teachers' trainers are highly qualified, academically and professionally as well and possess a long professional experience ranging between 20 to 34 years, all seasoned and belong to 40 to 53 years age group and holding very respectable posts in the education department.

16.1.3 The study further reveals that 63% teachers' trainers have been oriented to NFE six days' formal training programme for NFE instructors sponsored by SIERT, Rajasthan and organised by the District Education Officers concerned 100% of them have been connected directly with the NFE programme for the period ranging from 1 to 10 years.

The following Table explains this:

TABLE NO. 13

Distribution of teacher-trainers on the basis of their quqlification, professional

.....93/-

experience, Age, undertaken formal training for NFE functionaries, holding present post and duration of period connected directly with NFE:

Characteristics	Teachers' Trainers			
	Male		Female	
	No.	%	No.	%
1. Possessing				
(a) Adequate Academic and professional qualification M.A. B.Ed.	8	100%	Nil	Nil
(b) Below	Nil	Nil	Nil	Nil
2. Professtional Experience				
i) Below 20 years	1	13%	-	-
ii) 20 to 30 years	2	25%	-	-
iii) Above 30 years	5	63%	-	-
3. Belonging to Age				
i) 40 to 50 years	4	50%	-	-
ii) Above 50 years	4	50%	-	-
4. Whether undertaken formal NFE Instructors training				
Yes	5	63%	-	-
No	3	37%	-	-

....94/-

5. Whether holding gazetted post				
Yes	7	87%	-	-
No.	1	13%	-	-
(Working supervisor in IInd grade)				
6. No. of years connected with NFE programme				
i) 1 to 2 years	1	13%	-	-
ii) 2 to 5 years	5	63%	-	-
iii) 5 years and above	2	25%	-	-

TABLE-NO. 14

16.1.4 Distribution of Teacher Trainers on the basis of their opinion about nature of training programme.

Characteristics	Teachers' Trainers			
	Male		Female	
	No.	%	No.	%
i) Pre-service				
Yes	3	38%	-	-
No	3	38%	-	-
ii) In-Service				
Yes	5	63%	-	-
No	1	13%	-	-
iii) Duration six days	8	100%	-	-
Hours 36 per week	4	50%	-	-

....95/-

Hrs. 42 to 48	4	50%	-	-
per week	4	50%	-	-
iv) Whether oriented to specific needs of Instructors.				
Yes	8	100%	-	-
No	1	13%	-	-
v) Whether there is any refresher course after training				
Yes	1	13%	-	-
No	7	88%	-	-

16.1.5 The aforesaid table indicates that inservice training is imparted to the instructors keeping their specific needs into consideration for six days' duration. As regards the distribution of total time in hours the table indicates that according to 75% Teachers Trainers more than 50% time is allotted to Theory and rest for practical work. The study reveals that no refresher course for instructors is organised at present in Rajasthan.

TABLE NO. 15

16.1.6 Distribution of Teacher Trainers on the basis of their opinion about the tasks of NFE Instructors as conceived by them.

Characteristics	Teacher Trainers			
	Male		Female	
	No.	%	No.	%
1. Develop functional literacy of children	8	100	-	-
2. Motivate children for Education	8	100	-	-
3. Develop proper habits, attitudes and values	8	100	-	-
4. Promote attitude for self-employment	6	75	-	-
5. Help children in understanding and appreciating their environment	8	100	-	-
6. Develop sense of citizenship as agents of social change	8	100	-	-
7. Develop awareness about social problem	8	100	-	-

....97/-

16.1.7 It is quite evident from the above table that the Inservice training imparted to the instructors is task oriented, and cent percent teachers' trainers try to develop the qualities in the instructors to enable them to arrange teaching learning activities in such a way that the above mentioned tasks are accompalished.

TABLE NO. 6

16.1.8. Distribution of Teacher Trainers on the basis of their opinion pertaining to the different competencies incorporated in the Training programme for NFE Instructors.

Characteristics	Teachers' Trainers			
	Male		Female	
	No.	%	No.	%
1. Identifying learners' learning needs for personal and community development.	8	100	-	-
2. Adjust and develop state level curriculum according to local needs	8	100		

.....98/-

3. Develop proper communication skill	6	75	-	-
4. Impart social skill	8	100	-	-
5. Individualize instructional methodology	5	63		
6. Evaluate pupil's progress and maintenance of records for feed back	8	100		
7. Provide remedial Teaching after evaluation	7	88		
8. Use multi-media in learning process	7	88		
9. Develop competencies for purposeful discussion with children's parents	8	100		

.....99/-

10. Develop awareness about problems of community and environment	7	88	-	-
11. Promote competencies for self-learning among children	7	88		
12. Develop occupational skills in children	5	63		

16.1.9 The above table indicates that the Inservice training imparted to the instructors for six days duration is task oriented and competency based.

16.1.10 In accordance with the opinion expressed through the aforesaid table almost all teachers' Trainers try to incorporate and develop all desired competencies in the Instructors through six days' Training programme.

NATURE OF TRAINING PROGRAMME:

17.1 As regards the nature of the Training programme the present study reveals that the Inservice training for six days' duration with 6 to 8 hours

a day working and oriented to specific needs of the Instructors is task oriented and competency based. The study further reveals that according to 88% Teachers' Trainers. There is no arrangement for any refresher course after training.

17.1.1 CONTENT OF TRAINING PROGRAMME:

The present study reveals that the training programme contains theory as well as practice. In certain cases theory is integrated with practice. Under theory fifteen talks are delivered by the teachers' trainers (Resource persons) on different topics such as need, concept, philosophy, principles and objectives of NFE programmes, the curriculum developed for primary level, introduction to text books, Teaching Methodology for different subjects, evaluation technique and maintenance of Record and periodical returns, motivation technique for enrolment of out-of-school children and their retention at the NFE centre, community participation and involvement for the successful functioning of the centre. The talks on the probable difficulties faced in the curriculum transaction and enrolment of children, and their retention upto the completion

of the course prescribed for primary level etc. wastage and stagnation and their solution are delivered during the course of training.

17.2 Besides formal talks the demonstration lessons in teaching different subjects are organised.

17.3 During six days' training programme the following area of practical work is covered:-

i) Group work: for developing teaching aids with indigenous material.

ii) Maintenance of Record: Practical training is imparted for the maintenance of various records at the NFE centre.

iii) Survey work: For finding out the non-enrolled children (deprived and dropouts of formal schooling of 9-14 years age group)

iv) Practical work for SUPW

v) Personal contact with various developmental Agencies, organisations, community leaders.

vi) Community songs: The following table explains in details about the content of the course.

....102/-

TABLE NO. 17

17.3.1 Distribution of Teacher Trainers on the basis of their opinion about the content of Training course:

Characteristics	Teacher Trainers			
	Male		Female	
	No.	%	No.	%
1. Concept of education	7	88	-	-
2. Concept of NFE programme	8	100		
3. Curriculum of NFE programme its specificity	7	88		
4. Universalisation of elementary education and its problems:				
a) Enrolment	8	100		
b) Wastage	7	88		
c) Stagnation	7	88		
d) Retention	7	88		
5. Concept of need based learning	7	88		
6. Theory of learning	8	100		
7. Organisation of NFE centres	8	100		
8. School and Community Interaction	8	100		

......103/-

9. Concept of life long learning	6	75	-	-
10. Methodology of self learning	-	-	-	-
11. Concept of learning by doing through experience	7	88		
12. Technique of evaluation	6	75		
13. Expose to NFE Centre	7	88		
14. Practising in NFE centre	8	100		
15. Identification of problems of the NFE centre				
a) Wastage	7	88		
b) Stagnation	6	75		
c) Retention	6	75		
16. Community survey	7	88		
17. Preparation of evaluation tools	4	50		
18. Preparation of need based learning method	6	75		

17.3.2 The aforesaid table bears the testimony of the volumenous course content which cannot be covered

up within a very short period of six days. The Teachers' Trainers, the instructors and all other functionaries have suggested that the duration of the training programme is quite insufficient and it should be increased from six days' to fifteen days. They have further suggested that the refresher course of six days' duration should be organised every year to reorient the instructors and all other functionaries of the NFE programme with the latest developments in respect of new trends and tendencies in NFE, teaching methodology, use of multi-media and new Educational Technology in learning process.

METHODS OF TRAINING ADOPTED:

18.1 The technique and methodology adopted for imparting training to the Instructors has already been stated on the preceding pages. The training is imparted through fifteen talks delivered by teachers' trainers on different aspects of the training programme. The demonstration lessons are also organised for imparting practical training and organising teaching-learning activities.

.....105/-

18.2 The present study reveals that according to the opinion of 75% Teachers' Trainers the following methods of training are adopted while imparting training to the Instructors:

1. Lecture-cum-discussion
2. Group discussion
3. Workshop Techniques
4. Talks by Resource persons followed by discussion.
5. Visits of field trips.
6. Demonstration.

18.3 No Audio visual Aids are used while imparting training. Moreover, simulation technique, case study, visits of field trips and work study projects are also not applied in the Training programme.

The following table explains this:

TABLE NO. 18

Characteristics	Teachers' Trainers			
	Male		Female	
	No.	%	No.	%
1. Lecture-cum-discussion	7	88	-	-
2. Group Discussion	6	75		

....106/-

3. Workshop Technique	6	75	-	-
4. Simulation Technique	4	50		
5. Talks by Resource persons followed by discussion	7	88		
6. Visit of field trips	3	38		
7. Case studies	2	25		
8. Demonstration	5	63		
9. Use of Audio-visual aids	4	50		
10. Work study Project	1	13		

EVALUATION OF THE TRAINING PROGRAMME:

19.1 As regards the evaluation of the training programme the present study reveals that in accordance with the statement of 88% teachers' Trainers the training programme for instructors, supervisors, Asstt. Project Officers, Resource persons, and other functionaries of the NFE programme has never been evaluated.

The following Table explains this:

TABLE NO. 19

19.1.1 Distribution of Teachers' Trainers on the basis of their opinion about the evaluation of training programme.

Characteristics	Teachers' Trainers			
	Male		Female	
	No.	%	No.	%
1. Whether Training programme has ever been evaluated				
Yes	1	13		
No	7	88		

IMPACT OF THE TRAINING PROGRAMME ON THE BENEFICIARIES AS EXPERIENCED BY THE TEACHER TRAINERS:

20.1 Although the training imparted to the Instructors is of a very short duration i.e. for six days only, yet it has its impact upon the beneficiaries, which can be gauged through their organisation of teaching learning activities,

......108/-

scholastic achievements of the children, behavioural change experienced by their parents. Community leaders and other knowledgable persons. The supervisors and other functionaries of NFE programme including Asstt. Project Officers, Block Development Officers, Developmental Authorities etc. express their impressions about the impact of the training programme upon the instructors.

20.2 The present study reveals that according to the impression of Teachers' Trainers, the training programme has great impact upon the beneficiaries, which they have experienced through various situations.

20.2.1 The following table explains the impact of the training programme as experienced by the teachers' trainers through various situations.

TABLE NO. 20

Distribution of Teachers' Trainers on the basis of their impressions regarding the impact of training upon the beneficiaries (Instructors)

Characteristics	Teachers' Trainers			
	Male		Female	
	No.	%	No.	%
1. Whether the impact of programme on beneficiaries ever gauged				
Yes	7	88	-	-
No	1	13	-	-
2. By visiting NFE centres	7	88		
3. By discussing with local people	7	88		
4. By discussing with parents	6	75		
5. By discussing with instructors	7	88		
6. By discussing with supervisors	7	88		
7. By discussing with Block Development Officers	6	75		
8. By administering tools to Instructors periodically	1	13		

....110/-

IMPACT OF INSERVICE TRAINING UPON THE INSTRUCTORS AS EXPERIENCED BY THEMSELVES:

21.1 From the perusal of the preceding chapter it is quite evident that 83% instructors working at the NFE centres of the sample have undertaken the six days' short term inservice training and have derived maximum benefit in different areas. The present study reveals that 60% instructors have obtained the benefit in the use of appropriate methods of teaching different subjects, whereas 30% have derived the benefit in respect of the appropriate technique for evaluating the students achievements. 28% have obtained the benefit in constructing the community involvement in the development of the NFE centres and for the successful implementation of the NFE programme. Similarly 28% instructors have derived maximum benefit for organising co-curricular activities. Moreover, 33% instructors have obtained the maximum benefit for the conduct of remedial teaching.

21.2 Only 23% instructors have derived the maximum benefit for organising different ability groups

...111/-

for the conduct of teaching learning activities.

21.3 The study further reveals that 14% instructors have given priority in deriving maximum benefit for maintaining records at the NFE Centres.

21.4. In short, the instructors have derived maximum benefit from the short term inservice training and have suggested that the duration of the period of this inservice training should be increased from six days to fifteen days. They have further suggested that the refresher course should be organised every year to orient them in solving their problems during the course of curriculum transaction.

21.4.1 The table indicating the areas in which maximum benefit is felt by the Instructors is given below:-

TABLE NO. 21

Distribution of Instructors on the basis of the areas in which maximum benefit has been felt by them.

.....112/-

Characteristics In order of preference	Instructors			
	Male		Female	
	No.	%	No.	%
1. Appropriate methods for teaching different subjects	22	55	2	5
2. Appropriate technique for evaluating the students' Achievements	12	30	-	-
3. Constructing community involvement	10	25	1	3
4. Organising Co-curricular activities	10	25	1	3
5. In the conduct of Remedial Teaching	13	33	-	-
6. Organising different ability groups	8	20	1	3
7. Maintaining records for the centre	7	11	1	3
8. Any other				

MATERIALS USED IN TRAINING PROGRAMME OF NFE INSTRUCTORS

22.1 From the critical appraisal of the training programme organised for a short duration of six days for the instructors and other functionaries of NFE

programme it is quite evident that the State Institute of Educational Research and Training (SIERT) Rajasthan, the sponsoring agency, has developed a Training manual for NFE instructors and other functionaries of NFE programme containing the detailed instructors' course content, procedure, training methodology for its effective use by the organising authorities, Resource Persons and Teachers' Trainers.

22.2 Besides the aforesaid training manual the following Instructional and Teaching materials are also used while imparting training to the Instructors:-

i) Curriculum developed for primary level of the NFE programme.

ii) Text books : devised in accordance with the course prescribed in the curriculum.

iii) Teachers' Guide : Anoupcharik Shiksha Sandershika devised by the Directorate of Adult Education, Rajasthan.

iv) A book on community songs:

22.3 No Teachers' handbook has so far been devised in Rajasthan. No other resource material and Audio

....114/-

visual Aids, have been used for imparting training.

22.4 The present study reveals that 100% Teachers' trainers have made the effective use of the aforesaid materials. The following table explains their impression about the effective use of training material:

TABLE NO.22

22.4.1 The distribution of Teachers' Trainers on the basis of their impressions about the use of Instructional material for imparting training to the Instructors etc.

Characteristics	Teachers' Trainers			
	Male		Female	
	No.	%	No.	%
The material used for imparting training to Instructors				
1. Training Manual	8	100	-	-
2. Teachers' handbook	1	13	-	-
3. Teachers' guide	2	25		
4. Curriculum of NFE	8	100		
5. Audio-visual material	Nil	Nil		
6. Instructional material	4	50		

...115/-

SUGGESTIONS FOR THE IMPROVEMENT OF THE TRAINING PROGRAMME:

On the basis of the critical appraisal of the impact of the inservice training oriented to the specific needs of the Instructors it is quite evident that besides all the essential qualities of the impressive personality of an Instructor his academic qualification enriched with professional training helps him in achieving the desired goal of eradicating illiteracy from the out-school-children, mostly girls, belonging to weaker section of the society, residing in the rural, tribal, hilly, desert and slum areas of Rajasthan.

The present study reveals that alghough the present Inservice training oriented to specific needs of the instructors imparted to them for a very short duration of six days has considerably impact upon them yet it is quite inadequate, insufficient and does not compensate their low academic qualification. The teachers' trainers also feel the inadequacy of this short training and suggest that:

23.3 1. The duration of the period of six days' allotted for this training should be increased to fifteen days.

2. They further suggest that the refresher course should be organised every year for the Instructors for at least six days duration to reorient them with the latest developments, trends and tendencies of the NFE programme and teaching methodology for various subjects for the solution of the problems and difficulties faced by them during the course of curriculum transaction, and organisation of teaching learning activities.

3. They further suggest that the use of Multi-media in the learning process and use of latest educational Technology should be taught to the Instructors.

4. The Teachers' trainers further suggest that more emphasis should be laid upon the practical aspect of this training.

5. The Teachers' trainers are of the opinion, that fair and impartial selection of the instructors would improve the quality of the NFE programme.

....117/-

6. In the opinion of the Teachers' trainers the Inservice training may be made more interesting by improving the lodging and boarding facilities for Instructors and introducing.

7. Cultural programme in the evenings.

The proper written records for this training should be maintained.

The following Table explains this:

TABLE NO. 23

Distribution of Teachers' Trainers on the basis of the suggestion given for the improvement and modification of the Training programme:

Characteristics	Teachers' Trainers			
	Male		Female	
	No.	%	No.	%
1. Duration of the training be increased to fifteen days	5	63		
2. Refresher course be organised every year for six days' duration	2	25		
3. Cultural programme should be organised to make the training programme more interesting	1	13		

4. More emphasis on practical work	1	15
5. Proper lodging and boarding arrangements for trainers	1	5
6. Proper written records of the training should be maintained	2	25
7. Fair and impartial selection of Instructors should be made	2	25

CONCLUSION:

24.1 1. The Instructor plays an important and pivotal role for the successful implementation of NFE programme.

2. As the present study reveals cent percent instructors working at NFE centres belong to the same locality and continue staying till the entire course prescribed for primary level is covered, which is very encouraging.

3. But most of them are not sound academically as well as professionally. 75% of the Instructors possess the academic qualification upto middle standard.

....119/-

The short term inservice training imparted for six days' duration is quite inadequate and insufficient.

4. None of them belongs to SC/ST (weaker section of the society. Only 10% of them are females; which hampers the education of girls.

5. The Instructors face a lot of problems in curriculum transaction on account of the following reasons:

i) Lack of adequate knowledge of teaching Methodology.

ii) No adequate and frequent academic and pedagogical guidance is provided; no effective supervision by the supervisors and other administrative staff.

iii) No literature on teaching technique etc. is supplied to them such as - Teachers' guide, Training Manual, Book on unit-wise Tests, an introduction to NFE. Even curriculum is not supplied to them, which is very surprising.

iv) The instructional material consisting of Text Books, slates, pencils, exercise books,

chalk sticks etc. are not supplied to the learners in time, which hampers in organising teaching learnings activities at the NFE Centres.

v) Lack of community participation and involvement for providing adequate accommodation for NFE centre and other physical facilities pertaining to the drinking water, lighting arrangement etc. No motivation for the enrolment of out-of-school children and no encouragement is enrolled learner for maintaining punctuality, regularity, continuity and retention till the completion of the entire course prescribed for primary level.

vi) Low and poor attendance of learners, problem of dropouts due to lack of incentives in the form of Midday meals, free uniform, provision of scholarships, award of prizes for outstanding scholastic achievements.

vii) No provision for recreational activities, no arrangement for playing games and sports, no co-curricular activities.

viii) No arrangement for audio-visual aids for attracting NFE children, no teaching technology, no self-learning devices are made available at the NFE Centres.

ix) The contents of the courses of the Text books are too heavy to be covered up within the prescribed duration of period. Moreover, the level of difficulty of the contents of Text Book is beyond the comprehension of NFE children.

6. The short term Inservice training for six days is quite inadequate and insufficient. Duration should be increased from six days to fifteen days.

7. The refresher course should be organised every year at least for six days' duration to orient the instructors to solve the problems faced during the course of curriculum transaction and to orient them in the latest teaching technology.

8. Remuneration of the Instructors should be increased from Rs. 105 to 300/- P.M.

...122/-

CHAPTER - IV

SUPERVISION OF THE NFE CENTRES

1.1 The adequate, effective and periodical supervision of the NFE Centres by qualified supervisory staff is necessary for the successful implementation of the programme. The experimental project of NFE envisaged that the work of the administration and supervision would be done through the already established administrative machinery of formal education with the exception of some strengthening at the directorate level. Accordingly the responsibility of running NFE programme efficiently rests with the Director, Adult and NFE Education, Rajasthan. With the assistance of one Joint Director, NFE Programme who is overall Incharge of the NFE programme in Rajasthan. Virtually the Joint Director of NFE shoulders the responsibility for the successful implementation of the NFE programme. He does so with the help of the District Education Officer, who are further assisted by one full time Assistant Project Officer in each district. The Assistant Project Officer coordinates the activities of NFE programme of all the Blocks (Panchayat Samities) in the

District. At present 32 A.P.O. (Assistant Project Officers) have been working for the successful implementation of the NFE Programme in Rajasthan.

1.2 In the panchayat samities the Block development Officers exercise administrative control over all the functionaries of the NFE Programme in their respect blocks. This is done through one supervisor at each block Headquarter. The supervisor is overall incharge of the NFE centres at the block level and conducts supervision of fifty NFE centres and provides academic guidance to the Instructors. He also tries to solve the problems and difficulties faced by them during the course of curriculum transaction. The supervisor is expected to visit each NFE centre of the block at least once a month.

BACKGROUND OF SUPERVISORS:

2.1 All supervisors working as overall incharge of the NFE Programme in their respective blocks are under the administrative control of the Block Development Officers concerned and have been drawn from education department in the cadre of post-graduate teachers.

....124/-

2.2 As regards their qualifications, all the supervisors of the sample blocks are highly q-ualified acedemically and professionally as well and possess a long professional experience. They belong to the age group 30 to 53 years. No female supervisor is working in the Govt. set up at present. The study further reveals that all the supervisors have undergone the six days' formal training sponsored and organised by the State Institute of Educational Research and Training (SIERT), Rajasthan. All of them possess supervisory experience. The study reveals that 75% supervisors of the sample blocks have expressed their utter dissatisfaction about the six days' training which they feel is quite inadequate and insufficient. They have suggested that the duration of training ought to be increased to 15 days. It should be more environment based, new methods and approaches should be taught to them during training.

The following Table explains this:

TABLE NO. I

Distribution of supervisors on the basis of

....125/-

their qualification, supervisory experience, age, professional training etc.

Characteristics	Supervisors			
	Male		Female	
	No.	%	No.	%
A. Possessing				
i) Academic and professional qualifications M.A., B.Ed.	4	100	-	-
ii) Below	Nil	Nil	-	-
B. Supervisory Experience:				
i) 1 to 2 years	-	-	-	-
ii) 2 years and above	4	100	-	-
B. Whether undergone any formal training in supervision sponsored by SIERT, Udaipur for six days.				
Yes	4	100	-	-
No	Nil	Nil	-	-

....126/-

2.3 PROFESSIONAL EXPERTISE:

As regards the professional expertise of the supervisors, the study reveals that 100% supervisors of the sample blocks attended only once in-service training for NFE sponsored by the State Institute of Educational Research and Training (SIERT), Rajasthan during the period of last 10 years, which is quite evident from the following table:-

TABLE NO. 2

Distribution of supervisors on the basis of the Inservice training course attended by them during last 10 years.

Characteristics	Supervisors			
	Male		Female	
	No.	%	No.	%
1. Whether attended Inservice training course for supervisors				
Yes	4	100	-	-
No	Nil	Nil	-	-

....127/-

2. Duration of course				
six days	4	100	-	-
3. Year in which organised or attended				
a) 1984	2	50	-	-
b) 1985	2	50	-	-
4. Sponsored by				
SIERT, Udaipur	4	100	-	-

3.1 NATURE, PURPOSE, FREQUENCY AND INTENSITY OF SUPERVISION:

As regards the nature of supervision the study reveals that generally it is purposeful and task oriented. The supervision is conducted for providing academic and pedagogical guidance and for extending helping hand to assist the instructor for organising teaching-learning activities. The study further reveals that in accordance with the opinion of 50% supervisors the supervision is conducted to sort out the problems faced by the Instructors during the course of curriculum

.....128/-

transaction, 50% of them visit NFE centres to provide adequate guidance and help the teachers in respect of course contents, teaching methodology and infusing the spirit of regularity and punctuality among children by evoking participation of local persons. According to the opinion of 75% supervisors the supervision is conducted to verify the pupils' progress and competencies developed by them.

3.2 The study further reveals that 50% supervisors visit the NFE centres to verify the regularity of functioning of the NFE centre. Whereas 50% of them conduct intensive supervision to verify the coverage of syllabus scheduled. The study further reveals that 50% supervisors give priority to the maintenance of the record pertaining to the progress of children and their scholastic achievements in different subjects and provide adequate guidance to the children for continuing their studies with zeal and enthusiasm on the basis of their records.

3.3 50% supervisors are very much particular

about the submission of periodical returns, particularly the monthly reports submitted to the by the Instructors stating the progress made by the learners in respect of their scholastic achievements in different subjects. The study further reveals that 50% of the supervisors conduct supervision of NFE centres to evoke participation of local persons for maintaining, regularity and punctuality of children and to retain them upto the coverage of the whole course prescribed for primary level.

The following Table explains this:

TABLE NO. 3

Distribution of supervisors on the basis of priority given to the purpose of supervision of NFE centres conducted by them .

Characteristics	Supervisors			
	Male		Female	
	No.	%	No.	%
1. To verify pupils' progress	3	75	-	-

.....130/-

2. To sort out academic problems of teachers	2	50	-	-
3. To verify coverage of syllabus schedules	2	50	-	-
4. To verify i) regularity of functioning of centre.	2	50	-	-
5. To evoke participation of local persons	2	50	-	-
6. To look into the Academic record	2	50	-	-
ii) To guide and help teachers	2	50	-	-
iii) To look into the monthly reports	2	50	-	-

FREQUENCY OF SUPERVISION OF CENTRES:

As per norms prescribed every supervisor has to supervise the work of fifty NFE centres of his Block and is expected to visit each NFE centre at least once a month. But all supervisors feel that it is neither practicable nor feasible to conduct supervision of fifty centres. The present study reveals that 75% supervisors find it very difficult rather impossible to conduct supervision or formal visit to them even once in three months. The reasons expressed by them for their inability to accomplish the task assigned to them for conducting supervision of fifty centres within the prescribed time and maintain frequency are enumerated below:-

DISTANCE OF NFE CENTRES:

The present study reveals that:-

i) The minimum distance of NFE centres from their residence or block headquarter ranges between 1 KM to 17 KM.

ii) The study further reveals that the farthest distance of NFE centres of the sample block

from the headquarter or the residence of the supervisor ranges between 40 KM to 110 KM mostly in desert, hilly and tribal areas.

iii) The maximum distance as indicated in the present study between two NFE centres ranges from 6 KM to 17 KM.

4.1.2 The supervisors feel that it is neither feasible nor practicable to cover the long distance existed between two NFE centres without adequate means of transportation.

4.2 LACK OF ADEQUATE TRANSPORT FACILITIES:

Mostly NFE centres are located in the rural areas in the desert, hilly and tribal regions, where no means of transportation are available. The supervisors have to reach most of the NFE centres on camel (in the desert) and in most of the cases by cycle and in the most of the cases where the access to NFE centres is very difficult and where no such means are available the supervisors have to cover the long distance on foot to reach from one NFE centre to another.

4.3 ADDITIONAL ASSIGNMENT PERTAINING TO THE DEVELOPMENT DEPARTMENT:

75% supervisors of the sample have expressed their deep concern about the overlapping assignment pertaining to the developmental activities of the block entrusted by the block development officer concerned (who is their controlling authority) which hampers their usual and normal work of supervision and puts great hinderances in the performances of their sincere duties for conducting effective supervision of the NFE centres. They find themselves at their wit's end in conducting the effective supervision of NFE centre even once a year.

4.4 SUGGESTIONS FOR IMPROVEMENT:

4.4.1 The supervisors have suggested that the administrative control of the NFE programme should be withdrawn from the development department and should be kept under the direct administrative control and supervision of their parent department i.e. education department.

....134/-

4.4.2 They have further suggested that the number of centres allotted to one supervisor should be reduced to 20-25 or less in place of 50 specially in hilly, and desert areas for conducting effective supervision to a NFE centre at least once a month.

444.3 The supervisors have further suggested that the adequate transport facilities should be provided to them for conducting effective and efficient supervision of the NFE centres and for providing adequate academic and pedagogical guidance to the Instructors to organise teaching-learning activities efficiently and to motivate children to maintain retention, observe punctuality and regularity and continuity at the NFE centres.

RATIONALE FOR DETERMINING FREQUENCY OF SUPERVISION

5.1 The present study reveals that almost 100% supervisors have fixed criteria for conducting supervision and accordingly they formulate pre-planned programme for supervising the NFE centres and to evaluate the pupils' performances. They content the parents, community leaders and

developmental authorities available in order to obtain their cooperation for running the centres. They also mobilize their help for motivating the depriveds, dropouts and other out-of-school children to seek admission to the NFE centre and then to maintain punctuality, regularity, Continuity and finally retention upto the coverage of the whole course prescribed for primary level.

The following Table explains this:

TABLE NO. 4

Distribution of supervisors on the basis of the distance of NFE centres, frequency, rationale for determining frequency of supervision.

Characteristics	Supervisors			
	Male		Female	
	No.	%	No.	%
A. DISTANCE OF THE NEAREST CENTRE FROM THE RESIDENCE OR BLOCK HEADQUARTER				
a) 1 to 2 KM	2	50	-	-
b) 2 to 7 KM	2	50	-	-

2. FARTHEST DISTANCE OF NFE CENTRE FROM THE RESIDENCE OR BLOCK HEADQUARTERS				
a) 40 to 60 KM	2	50	-	-
b) 60 to 110 KM	2	50	-	-
3. MAKIMUM DISTANCE BETWEEN TWO CENTRES				
a) 5 to 10 KM	2	50	-	-
b) 10 to 20 KM	2	50	-	-
B. FREQUENCY OF SUPERVISION OF NFE CENTRES				
i) Annually	-	-	-	-
ii) Half yearly	-	-	-	-
iii) Once in three months	3	75	-	-
iv) Monthly	2	50	-	-
v) Bio-monthly	1	25	-	-
vi) When-ever need exists	-	-	-	-
C. RATIONALE FOR DETERMINING FREQUENCY OF SUPERVISION				
i) Yes	4	100	-	-
ii) No	-	-	-	-
b) To give guidance	4	100	-	-
c) To orient instructors with new approaches	4	100	-	-

d) To evaluate centre and pupils' performances	4	100	-	-
D. AVERAGE TIME SPENT IN EACH VISIT AT THE CENTRES				
a) 1 to 2 hrs	1	25	-	-
b) 2 to 3 hrs	2	50	-	-
c) Above 3 hrs.	1	25	-	-

5.2 The aforesaid Table reveals that as the NFE centres are located in the distant areas and the easy access to them is not possible on account of their location and situation in difficult region it is very difficult for the supervisors to conduct frequent visits according to the norms fixed due to non-availability of adequate transport facilities. Moreover, being awfully pre-occupied in performing their duties assigned to them pertaining to other developmental work of the Block it is neither practicable nor feasible for them to visit each NFE centre once a month. They hardly conduct the supervision once in three months and spend from 1 to 2 hours at a time at the NFE centre.

MAIN DUTIES PERFORMED BY THE SUPERVISORS

6.1 Holding a key post for the successful implementation of NFE programme in the block a supervisor has to perform several important duties for the smooth functioning of the NFE centres. He maintains close and continuous personal contact with the community and tried to motivate the parents to get their out-of-school children enrolled at the NFE centre and helps the Instructors in maintaining regularity, punctuality and retention of enrolled children.

6.2 The present study reveals that 50% supervisors treat it as their first and foremost duty to encourage enrolment of out of school children by evoking participation of the communit and motivating the parents and the children alike through the timely supply of Instructional materials at the NFE Centre. They inculcate the spirit of self-reliance and encourage the learners to maintain punctuality, regularity and continuity. On the other hand 50% supervisors take it as their duty to provide academic and pedagogical guidance to

the Instructors for the successful organisation of the teaching-learning activities, application of suitable methods for teaching different subject. The study further reveals that 50% of the supervisors motivate the learners to develop desired competencies in different subjects to enable them to have entry into formal system of schooling.

6.3 The supervisors also extend their fullest cooperation and helping hand to the Instructors in solving the problems arising during the course of curriculum transaction and also work as liaison officer between Instructors and District Education Officer to solve the aforesaid problems..

6.4 The study further reveals that 25% supervisors also take it as their important duty to inspect and scrutinise the records maintained by the Instructors at the NFE centres and provide adequate guidance for submitting the monthly progress reports stating the progress of the children towards their scholastic achievements.

The following Table explains this:

TABLE NO. 5

Distribution of supervisors on the basis of their opinion regarding the main duties being performed on priority basis.

Characteristics	Supervisors			
	Male		Female	
	No.	%	No.	%
1. To encourage enrolment	2	50	-	-
2. To evoke participation of community	2	50	-	-
3. To help teachers academically and pedagogically	2	50	-	-
4. To motivate students and teachers	2	50	-	-
5. To work as liaison between Instructors and D.E.O.	1	25	-	-
6. To inspect and scrutinize records and accounts at the NFE Centre	1	25	-	-

AREAS OF SUPERVISION

The present study reveals that 75% supervisors provide academic guidance to the Instructors to develop and improve their own competencies specifically in the contents area. It has also been mentioned that 75% instructors of the sample possess the academic qualification upto middle standard. Moreover, the six days' short term inservice training imparted to them is so inadequate and insufficient that it does not compensate their low academic qualification. Hence these supervisors provide adequate pedagogical guidance to the instructors for improving their competencies in organising teaching learning activities efficiently and effectively. However, due to non-availability of curriculum, teachers' guide and training manual, the instructors face great difficulties in curriculum transaction especially in teaching mathematics and natural science. The supervisors try to orient them in the application of teaching methodology suited to the needs and learning situations of the learners. Majority of supervisors

....142/-

also provide adequate guidance to the instructors to organise co-curricular activities to motivate children to maintain punctuality, regularity, continuity and finally retention at the NFE centre.

7.2 As regards the guidance provided by the supervisors for improving the competencies of the instructors in diagnostic evaluation and feedback, the supervisors have divergent opinions. 25% supervisors give top priority to provide adequate guidance to the instructors to improve their competencies for organising diagnostic testing in various subjects and to prove remedial teaching to the learners.

The following Table explains this:

TABLE NO. 6

Distribution of supervisors according to the areas of supervision.

Characteristics	Supervisors			
	Male		Female	
	No.	%	No.	%
1. Guidance provided to the instructors for improving their competencies in:				
i) Contents area	3	75	-	-

ii) Methods of teaching	3	75	-	-
iii) Communication in and outside the class	3	75	-	-
iv) Organisation of Centre in a planned manner	2	50	-	-
v) Organisation of co-curricular activities	3	75	-	-
vi) Diagnostic evaluation and feedback	1	25	-	-

INSTRUCTIONAL MATERIAL SUPPLIED THROUGH SUPERVISORS

8.1 The supervisor arranges the supply of instructional material such as text books, slates, pencils, exercise books to the NFE children and teaching material - black-boards, chalk-sticks, maps, charts etc. hurricane lamps for lighting arrangement etc. duly obtained from various agencies i.e. SIERT, Rajasthan through District Education Officer and Block Development Officer concerned.

8.2 The present study reveals that besides Text books, no supply of other teaching material i.e.

....144/-

curriculum, Teacher's guide, Training manual, Book on unitwise tests, an introduction to NFE etc. is made by the supervisor; consequently the instructors find themselves quite helpless in solving the difficulties and problems arising during the course of curriculum transaction.

8.3 The present study reveals that in the opinion of 50% supervisors the copies of curriculum are distributed to the NFE centres, while 75% supervisors hold the opinion that they simply acquaint the instructors with the course contents of the curriculum. The divergent opinion of the supervisors bears the testimony of the fact that the curriculum, which is an essential guide-book is not made available at the NFE centres.

8.4 The study further reveals that in the opinion of 50% supervisors the training manual is distributed to the NFE centres, whereas, 25% supervisors hold the opinion that they simply acquaint the instructors with it. The divergent opinion indicates that this is very important guide book never reaches the hands of instructors.

8.5 It is most unfortunate that no teacher's

handbook has been devised in Rajasthan, but the study reveals that in the opinion of 25% supervisors the instructors are acquainted with it, which is also a very misguiding. statement.

It is also very distressing that the very important evaluation device - "Book on unitwise Tests (Anoupcharik Shiksha Ekai Parakh Pustika) devised by SIERT, Rajasthan never reaches the hands of the Instructors.

The following Table explains this:

TABLE NO. 7

Distribution of supervisors on the basis of their opinions for the availability of State devised Teaching material to the Instructors.

Characteristics	Supervisors			
	Male		Female	
	No.	%	No.	%
1. NFE Curriculum				
a) Distributing	2	50	-	-
b) Acquainting	3	75	-	-
c) Interpreting	-	-	-	-

2. Teacher's Manual				
a) Distributing	2	50	-	-
b) Acquainting	1	25	-	-
c) Interpreting	1	25	-	-
3. Instructional Material				
a) Distributing	3	75	-	-
b) Acquainting	2	50	-	-
c) Interpreting	-	-	-	-
4. Teacher's Hand-book				
a) Distributing	-	-	-	-
b) Acquainting	1	25	-	-
c) Interpreting	1	25	-	-
5. Evaluation Record				
a) Distributing	1	25	-	-
b) Acquainting	1	25	-	-
c) Interpreting	1	25	-	-

PROCEDURE ADOPTED TO KEEP THE RECORD OF PROGRESS OF THE NFE CENTRE:

9.1 The quarterly progress relating to the academic achievements of each individual learner is recorded by the Instructors on the prescribed proforma given

on page 36 of the NFE Teacher's Guide at every centre. The proforma contains the progress achieved and competencies developed in different subjects taught to the learners at the centre within the particular quarter.

Moreover, the supervisor submits a detailed quarterly report of each NFE centre to the District Education Officer on the prescribed proforma about the the progress of the NFE centre pertaining to the academic achievements of the learners and the progress of the teaching learning situations and aspects pertaining to the factual position of the functioning of the NFE centre.

The present study reveals that 50% supervisors admit that the progress of each centre is recorded by them which is quite evident from the table given below:

TABLE NO. 8

Distribution of the supervisors on the basis of their opinion about the maintenance of

problems of the instructors are solved by exposing them to various types of literature. The study further reveals that 100% supervisors discuss with higher authorities about the academic problems of the Instructors and arrange orientation programme for them.

10.2 According to the opinion of 75% supervisors the help is sought from the local formal schools for the orientation of the centre Instructors to solve their academic problems.

10.3 The study further reveals that 100% supervisors solve the academic problems of the Instructors on the basis of their own experience.

The following Table explains this:

TABLE NO. 9

Distribution of supervisors on the basis of their opinion for solving the academic problems of the Instructors.

Characteristics	Supervisors			
	Male		Female	
	No.	%	No.	%
i) Exposing to various types of literature	3	75	-	-

......150/-

ii) Discussing with higher authorities and arranging orientation programme	4	100	-	-
iii) Seek help of local schools for orientation of centre Instructors	3	75	-	-
iv) Depend upon own knowledge and experience	4	100	-	-

ASSISTANCE OFFERED TO THE LEARNERS DURING SUPERVISION:

11.1 The present study reveals that 75% supervisors provide specific nature of assistance to the learners in solving the problems pertaining to the difficult sums in Mathematics. They provide vocational guidance to the learners if they so desire.

SPECIFIC ACTIVITIES OF THE SUPERVISORS IN GENERAING PUBLIC AWARENESS IN NFE PROGRAMME:

The supervisor maintains constant and frequent personal contact with the community, parents of NFE learners and community leaders for enrolling all depriveds and dropouts of formal school children to the NFE centre and motivates them for extending their cooperation in maintaining punctuality, regularity, continuity and retention of their children to the NFE centres till the entire course prescribed for primary level is covered up. Moreover, the enthusiastic supervisor seeks the active cooperation of the community in obtaining adequate accommodation for the NFE centre and all sorts of possible physical facilities for their children. The active public cooperation is also mobilized for providing incentives to the children in the form of free uniforms, midday meals etc.

The community leaders, parents and the public at large are invited to attend the national functions and cultural activities organised by the NFE centres from time to time to generate the

public awareness in NFE programme.

ASPECTS MOSTLY DISCUSSED WITH HIGHER EDUCATION OFFICERS:

13.1 The supervisors mostly contact the higher officers of the Education Department and discuss with them and seek their help and guidance for the successful implementation of NFE programme in the block in respect of the following aspects:-

13.1.1 For organising refresher course for six days' duration to orient instructors in the themes and concepts of NFE programme, the latest developments arising in the objectives of NFE programme and to acquaint them with the new trends a nd tendencies of NFE programme and to find the solutions of the problems they feel during the course of curriculum transaction and in organising the teaching learning activities at the NFE centre.

13.2 To arrange the supply of the following essential literature devised for providing guidance to the instructors.

i) Curriculum for primary level

ii) Teachers' guide

iii) Training manual

iv) Book on Unitwise test

v) An introduction to NFE programme.

13.3 To increase the duration of six days' inservice training for instructors to 15 days for imparting adequate training to them.

13.4 To develop hand book for NFE instructors for their proper guidance.

13.5 To provide incentive to children in the form of midday meals, free uniforms, scholarships to girls and other children belonging to extremely poor families award of prizes to the children for their outstanding performances and academic achievements to encourage them to maintain regularity, continuity and retention.

13.6 To increase the remuneration of Instructors from Rs. 105 to Rs. 300 P.M. to improve the quality of NFE programme.

13.7 To provide Teaching aids including latest developed multimedia approaches and educational technology to develop self-learning among the children.

......154/-

13.8 To take adequate steps for the selection of capable, efficient, sincere, enthusiastic and qualified Instructors impartially to develop the quality and standard of NFE learners.

GENERAL IMPRESSION OF THE MOTIVATION OF THE CENTRE INSTRUCTORS IN MOST CENTRES VISITED:

14.1 As regards the motivation of the centre Instructors of the most centres visited the present study reveals that according to the 100% supervisors only 25% Instructors were found poorly motivated, 25% supervisors found them 100% reasonably interested, other 25% found them 75% reasonably interested. The study further reveals that 25% supervisors found 50% of the instructors reasonably interested, whereas 25% supervisors found 25% of the Instructors reasonably interested.

14.2 The study further reveals that in the opinion of 50% supervisors 75% instructors take good care, whereas 25% supervisors have the impression that only 25% Instructors take good care, whereas the another 25% supervisors find 100% Instructors taking very good care.

....155/-

14.3 According to the impressions of 25% supervisors 100% Instructors were found totally dedicated, while 25% supervisors found only 50% Instructors dedicated and according to the impression of 25% supervisors only 25% were found absolute dedicated, whereas 25% supervisors did not find any one of the instructors dedicated towards the cause of NFE programme.

APPROPRIATENESS OF METHODS USED BY INSTRUCTORS:

15.1 As regards the impression of the supervisors about the appropriatness of methods used by the Instructors supervised by them the study reveals that 25% supervisors have very poor impression, whereas 25% supervisors are satisfied with the methods of teaching and 30% instructors to some extent. 75% supervisors have good impression about the appropriateness of the methods used by 50% Instructors. No supervisor has excellent impression about the methods of teaching used by the Instructors.

15.2 It is quite evident from this study that 50% instructors are not conversant about the

appropriate methods used while teaching.

16.1 ACADEMIC COMPETENCIES OF THE INSTRUCTORS:

From the perusal of the preceding pages it is quite evident that 75% of Instructors working at the NFE centres of the sample possess the academic qualification upto middle standard. The short term training of six days' duration imparted to them is quite insufficient and does not compensate their low qualification. The present study further reveals that according to the opinion of 75% supervisors about 60% instructors possess good academic competencies, whereas 25% supervisors maintain that 10% of the instructors possess the academic competencies of average standard, while none is found academically poor.

OPINION ABOUT GENERAL AWARENESS OF INSTRUCTORS ABOUT DIFFERENT MATERIALS PUBLISHED BY THE RAJASTHAN STATE FOR USE IN NFE CENTRES:

17.1 It has already been stated that the State Institute of Educational Research and Training, Rajasthan has developed the following Instructional material for the effective use of Instructors,

supervisors and other field functionaries of NFE programme.

1. Curriculum for primary level of NFE programme being used throughout the whole of the state of Rajasthan.
2. Teacher's Training Manual - Anoupcharik Shiksha Anudeshak Prashikshan Manjusha.
3. Evaluation device-Book on unitwise Tests- Anoupcharik Shiksha Ekai Parakh Pustika.
4. An Introduction to NFE Programme - Anoupcharik Shiksha Parchaiyika
5. Teacher's guide - Anoupcharik Shiksha Sandarshika.
6. Text books prepared in accordance with the NFE curriculum developed for primary level

17.2 From the perusal of the present study it has also been confirmed that besides Text books no other literature published by SIERT, Rajasthan for the effective use of Instructors reaches the hands of Instructors. During the six days inservice training the Instructors are made familiar with the aforesaid literature and its effective use at the NFE centres. The present

study reveals that in the opinion of 100% supervisors 70% instructors are aware of different Instructional materials published by the SIERT, Rajasthan for the effective use at NFE centres. 50% Instructors know about the literature, but 25% Instructors do not know about it at all.

GENERAL PERFORMANCE OF THE LEARNERS IN MOST NFE CENTRES VISITED:

18.1 While conducting effective supervision of any NFE centre the supervisor assesses the performance of the learners in literacy, numeracy, environmental awareness and vocational competencies. The supervisors form an impression about the discipline and manners of the learners. They further try to know about the organisation of co-curricular activities at the NFE centre.

18.2 The present study reveals that in the opinion of 25% supervisors the performance of the learners in literacy, numeracy and environmental studies and vocational competencies was found of average standard, while 50% of them found the performance of good standard. Only 25% supervisors found it excellent.

....159/-

18.3 As regards the vocational competencies of the learners developed at the NFE centre 50% supervisors have very poor opinion about it, only 50% supervisors found it only of average standard.

18.4 In the opinion of 50% supervisors the discipline and manners of the learners were found good, whereas 50% found them excellent.

18.5 The study further reveals that in the opinion of 25% supervisors the standard of the co-curricular activities organised at the NFE centre was found poor, 25% supervisors found it to be of good standard and 25% found it to be excellent.

SUGGESTIONS FOR MAKING SUPERVISION MORE EFFECTIVE FOR FUTURE:

19.1 From the perusal of the preceding pages it is quite evident that effective supervision and monitoring is an essential component for the successful implementation of non-formal education programme to achieve the goal for the universalization of elementary education. The present study reveals that adequate provision

has been made for the effective supervision and monitoring of the NFE centres through the appointment of sincere, experienced, adequately qualified, academically as well as professionally, supervisor in each block. The Inservice Training programme is also organised for imparting training to the supervisors by the SIERT, Rajasthan which is the sponsoring agency for all such training programmes as well as for conducting researches in the field of education.

19.2. The supervisors have given suggestions for bringing about the desired improvement in conducting effective supervision, which are enumerated under following heads:

19.2.1 SUGGESTIONS FOR NATURE OF DUTIES OF SUPERVISORS

As regards the suggestions for the nature of duties of supervisors the present study reveals that 50% supervisors have suggested that adequate arrangement for proper transport facilities would enable them to provide more academical and pedagogical guidance to the Instructors.

19.2.2 The study further reveals that in the opinion of 25% supervisors the constant and frequent personal contact with community and developmental authorities is very necessary for solving the problems of the NFE centres. They further suggest that more frequent contact of supervisors with parents would motivate the children to maintain punctuality, regularity, continuity and retention at the NFE centre.

19.2.3 In the opinion of 25% supervisors the adequate arrangement for regular and frequent evaluation would enable the Instructors to formulate teaching learning strategies more efficiently and would encourage the children for self-learning.

The following Table explains this:

TABLE NO. 10

Distribution of supervisors on the basis of their opinion/suggestion for improvement in in the nature of duties of supervisors of

NFE centres.

Characteristics	Supervisors			
	Male		Female	
	No.	%	No.	%
1. Provision in respect of the facilities for more academical and pedagogical guidance to the Instructors.	2	50	-	-
2. Constant and frequent contact with community for solving the problems of NFE centre	1	25	-	-
3. More frequent contact with parents for maintaining punctuality, regularity and continuity	1	25	-	-
4. Arrangement for regular and continuous evaluation of pupils' academic achievement	1	25	-	-

19.3.1 Suggestions for nature and scope of Training course with special reference to tests

and competencies needed to be developed.

TABLE NO. 11

Characteristics	Supervisors			
	Male		Female	
	No.	%	No.	%
1. Duration of Inservice training for Instructors, supervisors etc. should be increased from six to fifteen days.	3	75	-	-
2. Refresher course should be organised for six days' duration every year.	2	50	-	-
3. Arrangement for practical training to Instructors in the fields.	1	25	-	-
4. Motivate Instructors to read literature	1	25	-	-

It is quite evident from the aforesaid Table that in the opinion of 75% supervisors the duration of the present inservice training should be increased from six days to fifteen days to provide adequate and sufficient training to the

Instructors, supervisors and all the field functionaries of NFE programme.

19.3.3 The Table further explains that in the opinion of 50% supervisors refresher course should be organised for instructors and other functionaries of NFE programme every year for six days to orient them with the latest trends, tendencies, themes of NFE programme and to solve the problems cropping up during the course of curriculum transaction. The study further reveals that according to 25% supervisors adequate provision should be made for arranging practical training for Instructors in the field.

19.3.4 According to the opinion of 25% supervisors the trainees (Instructors) should be encouraged to read the latest literature pertaining to the NFE in service training for which adequate arrangement should be made.

SOME MORE SUGGESTIONS FOR IMPROVEMENT:

19.4.1 In addition to the above the supervisors have given some more suggestions for conducting effective supervision and monitoring for the successful

implementation of NFE programme 75% supervisors have suggested that the remuneration of NFE Instructors should be increased from Rs.105/- to Rs.300/- p.m. to bring efficiency in the successful and efficient functioning of the NFE centres.

19.4.2 100% supervisors have suggested that the Dichotomy of management hampers the effective supervision of the NFE centres. They are controlled and guided academically by the Education Department, whereas they have to work under the administrative control of the Development Department. The Block Development Officer (their administrative officer) engages him awfully in many developmental activities of the block, consequently he does not get sufficient time for conducting effective supervision. Therefore, the supervisors have suggested very strongly that the NFE programme should be withdrawn from the Development Department.

19.4.3 50% supervisors have suggested that the norms for allotment of NFE centres should be determined keeping in view the Geographical

.....166/-

situation of the region and in the hilly, desert and tribal area the number of NFE centres should be reduced from fifty to twenty or twenty five or less for conducting effective, frequent and efficient supervision.

19.4.4 25% supervisors ha-ve suggested that adequate transport facilities should be provided to them to conduct effective supervision more frequently.

19.4.5 The study further reveals that according to the suggestion of 25% supervisors adequate arrangement for providing incentives to NFE children in the form of midday meals, free uniform, scholarship, award of prizes for their outstanding performances should be made to motivate them to maintain punctuality, regularity and continuity at the NFE centres till the entire course is covered up.

The following Table explains this:

TABLE NO. 12

Distribution of supervisors on the basis of their suggestions for improvement of NFE

....167/-

programme in the block.

Characteristics	Supervisors			
	Male		Female	
	No.	%	No.	%
1. Remuneration of instructors should be increased from Rs.105/- to Rs. 300/- p.m.	3	75	-	-
2. The NFE programme should be withdrawn from Development Department.	4	100	-	-
3. Adequate transport facilities should be provided to supervisors.	1	25	-	-
4. Incentives in the form of Midday meals, free uniform scholarships and prizes be provided to children	4	100	-	-
5. The Govt. as well as local community should shoulder the responsibility for the enrolment of all out-of-school children of 9-14 years Age group to NFE centre.	2	50	-	-

....168/-

20.1 CONCLUSION

1. The adequately qualified, professionally sound (Trained post-graduate) and experienced senior teachers work on deputation from Education Department as supervisor of fifty NFE centres of the block under the administrative control of the Block Development Officer.

2. As an overall incharge of the NFE programme at the block level a supervisor has to perform the following duties:-

i) Conducts effective supervision of all the fifty NFE centres at least once a month as per norms.

ii) Provides academic and pedagogical guidance to the instructors and solves his problems and difficulties arising during the course of curriculum transaction.

iii) Evaluates pupils' performances and encourages them to develop desired competencies at par with formal education.

iv) Infuses the spirit of regularity, punctuality, continuity and retention at the NFE centre upto the coverage of the entire prescribed course.

...169/-

v) Scrutinizes the record maintained at the NFE centre pertaining to the regular academic progress of the NFE children and provides guidance for submitting the periodical progress reports of the NFE centre to the higher authorities.

vi) Evokes participation of the local community for providing adequate accommodation for the NFE Centre alongwith all necessary physical facilities.

vii) Seeks active cooperation of the community leaders, parents for the enrolment of the out-of-school children and motivates the enrolled children for retention.

viii) Arrange the timely supply of instructional material to NFE children and teaching material such as Black-boards, maps, charts, chalk-sticks, lamps for lighting arrangement etc. to the NFE centre.

ix) Organises the inservice training for the instructors of his block under the guidance and supervision of District Education Officer and A.P.O.

....170/-

x) Contacts the higher authorities of Education Department for timely supply of teaching-learning material providing incentives, arranging timely refresher courses and removing other difficulties in proper and smooth functioning of the centres.

3. The supervisor fails to conduct supervision of fifty NFE centres even once in three months on account ofthe following reasons:

i) <u>LACK OF TRANSPORT FACILITIES</u>:
Due to non-availability of transport facilities it is neither practicable nor feasible for the supervisors to reach the NFE centres located in the remotest parts of hilly, desert and tribal regions having long distances between them.

ii) <u>ADDITIONAL OVERLAPPING ASSIGNMENT PERTAINING TO THE DEVELOPMENTAL ACTIVITIES OF THE BLOCK</u> hampers the performance of their normal duties.

iii) The number of NFE centres allotted to them as per norms is too much to be covered within one month.

...171 /-

4. SUGGESTIONS:

i) Adequate transport facilities should be provided to the supervisors for conducting effective and frequent supervision.

ii) The norms for supervision should be revised to 20-25 or less NFE centres.

iii) In order to avoid dichotomy of management the administration of NFE programme should be withdrawn from Development Department.

iv) Different models of supervision should be adopted according to the requirement and feasibility such as:

a) Through whole time supervisor with a norm of 20-25 centres per supervisor.

b) Through school complex scheme.

c) Through supervisors of formal schools.

CHAPTER - V

PART-A

NFE CHILDREN AND THEIR ACADEMIC ACHIEVEMENTS

1.1.1 From the perusal of the preceding chapters it is quite evident that the Experimental project on Non Formal Education Programme launched with a very humble start in 1974 in Rajasthan has energed to be a very forceful alternative strategy through which vigorous efforts have been being made to bring all non-enrolled, depriveds, dropouts and out of formal school children of 9-14 years Age group, mostly belonging to economically and socially backward, scheduled caste and Scheduled Tribes, poverty striken and down trodden class of people residing in the remotest part of rural, tribal, desert, hilly and slum areas of Rajasthan, into the fold of education. It has also been stated that during the years 1985-86 3,45,236 children including 1,62,952 girls have been benefitted at 10,242 NFE centres in the state. The present study has revealed that a separate curriculum has been developed by SIERT, Rajasthan for primary level in accordance with the

principles, philosophy, concepts and objectives of NFE programme to develop the competencies at par with formal school and suiting to the needs and life situations of children. The Instructional materials including five Text books (three with integrated approach on language and environmental studies, natural science, health and hygiene and SUPW and two on mathematics with Disciplinary approach) Teachers' Guide, Teachers' Training Manual, Unitwise test book, an Introduction to NFE programme etc. have also been developed and supplied to the NFE centres free of cost. The short term training for six days' duration for NFE Instructors is also organised by SIERT, through District Education Officer. The Supervisors and all other NFE functionaries also are trained by SIERT. The Instructional materials such as Text books, slates, pencils, exercise books etc. are also supplied to the children free of cost.

In order to evaluate the programme and to find out the factual position in respect of academic

.....174/-

achievements of NFE children the Tests on language, Mathematics, Environmental studies and natural science were administered to the NFE children of the sample - Blocks of Pisangan and Srinagar in District Ajmer and Chohtan and Dhorimanna of District Barmer selected on Random basis. These achievement tests were administered to the NFE children of the NFE centres run by the voluntary agencies i.e. District Adult Education Association, Ajmer and Lok Shikshan Sansthan, Jaipur, selected as sample for Empirical study as already stated.

1.1.3 The same achievement tests were also administered to the children of one formal school of each block for comparison of the performances of formal school children with that of NFE children.

1.1.4.1 The NFE children studying at each NFE centre were divided under two categories:

Level-I

Children, who have been attending the NFE centres for at least one complete year and

covered up the seven units of the course prescribed in the curriculum. The tests were administered to 15 children of level-I from each NFE centre.

1.1.4.2 Level-II

The children, who have attended the NFE centres for at least two complete years and have covered up the whole course prescribed for primary level of NFE programme. The tests for second level were administered to Ten children at each NFE centre. Further the children of each level were grouped according to age as I below 11 years and the other above 11 years.

1.1.5 The achievement tests on language, Maths, Environmental studies and natural science devised under the auspices of the NCERT for all the nine Educationally Backward States were administered through Investigators appointed for the purpose and for collecting the Data for Empirical study.

1.1.6 Each achievement test for half an hour's duration was administered to the NFE children

as stated above. Their answer sheets were assessed and scores were entered on the Master plans by the investigators. The Tables developed by NCERT were also filled in by the Investigators in accordance with the scores obtained by the NFE children.

INTERPRETATION OF THE DATA COLLECTION THROUGH ACHIEVEMENT TEST:

1.2.1 GENERAL INFORMATION ABOUT THE CLIENTELE:

According to the criteria laid down for administering the achievement test to the NFE children of forty NFE centres of the sample of Districts Ajmer and Barmer. 1000 children of both the levels I & II belonging to both the age groups of below 11 and above 11 years ought to have appeared at the achievement tests. But only 814 children (boys and girls) appeared the percentage being 81.4%.

1.2.2 Moreover, only 492 children of both the sex and both the age groups appeared at the level I test out of 600 children as per fixed criteria. The percentage of NFE children appeared at Level I is 82% which is quite significant.

1.2.3 Similarly the percentage of NFE 322 children, who appeared at level II and belonged to both the age groups of (Below 11 and above 11 and of both the sex - male and female) as against 400 according to fixed criteria is 80.5% which is also quite significant.

1.2.4 Further the percentage of total male children appeared at the achievement tests and belonging to all communities including SC/ST is 70%, whereas that of female children of all communities is 30%. The following Table explains this:

TABLE NO. I

Distribution of all NFE children of both the age groups of I below 11 years and above 11 years and belonging to all communities who appeared in level I & level II on the basis of their sex.

Characteristics	Children			
	Males of all communities		Females of all communities	
	No.	%	No.	%
NFE children sex-wise	567	70	247	30

....178/-

1.2.5.1 The study further reveals that 27% children of both the sex (male and females) belonging to Scheduled Castes and Scheduled Tribes and of both the age groups appeared at the achievement tests administered for level I and level II.

The following Table explains this:

TABLE NO. 2

Distribution of children of both the age group of below 11 and above 11 years who appeared at the achievement tests of both the levels of I & II on the basis of their classifications of SC/ST/Male/Female/others.

Characteristics	NFE Children			
	SC/ST Male/Female		Others Male/Female	
	No.	%	No.	%
Children of SC/ST & others	218	27	596	73

1.2.5.2 The study further reveals that out of 27% children (Male/female) belonging scheduled Castes and Scheduled Tribes 20% are boys whereas the percentage of girls of SC and ST is only 7%.

1.2.5.3 As regards the percentage of male children (Boys) belonging to other communities the study reveals that out of the total strength of such children (Male and female) 50% are males (boys) and 23% are girls. The following Table explains this:

TABLE NO. 3

Distribution of children of both the age groups on the basis of their sex.

Characteristics	NFE Children			
	SC/ST Male/Female		Others Male/Female	
	No.	%	No.	%
The percentage of male and female of SC/ST	157	20	410	51
Others	61	8	186	23

On the basis of the aforesaid Table it is quite surprising that the 23% girls of other communities are more alert and aware of the

NFE programme and are aspirant to get education by attending NFE centres. Whereas the females (girls) SC/ST with every insignificant percentage i.e. 8% bears the testimony of their apathetic attitude. The reasons for such girls of SC/ST not joining the NFE centres may be their extreme poverty which complete them to be awfully busy with some productive pursuits and other domestic chores to earn their living.

1.2.5.4 The study further reveals that out 814 children who appeared at the achievement tests of level I and level II 56% children i.e. 455 (boys and girls) of all the communities belong to the age group of below 11 years. Out of this percentage only 16% belong to Scheduled Caste and Scheduled Tribes and 40% (boys and girls) belong to other communities.

1.2.5.4.1 Against this insignificant percentage of 16% of the children belonging to Scheduled Castes and Scheduled Tribes 12% are males and 4% girls. This shows the miserable and shocking condition of education of females of SC/ST whose majority

is still quite illiterate due to being depriveds of the facilities being provided for education at NFE centres, but the percentage of girls of other communities who are attending the NFE centres to get education is 14% whereas the percentage of boys is 26%. This bear the testimony of the alertness and awareness of girls of other communities who are quite cautious to avail of the facilities of education.

1.2.5.4.2 The following Table explains this:

TABLE NO. 4

Distribution of children who appeared at the achievement tests of both levels I and II on the basis of age groups of below 11 years and their classifications as SC/ST/Male/Female/others.

Characteristics	Children			
	SC/ST		Other	
	No.	%	No.	%
Children below 11 years Age group				
(Male)	97	12	209	26
(Female)	35	4	114	14
Total Male & Female	132	16	323	40

...182/-

1.2.5.5.1 The study further reveals that out of the total number of children of all the communities belonging to both the sex and age groups 44% children belong to age group above 11 years. This clearly indicates that about 12% children dropout of the NFE centres after having attended the NFE centres for one year, because according to the Data presented 56% children i.e. 455 out of 814 children of all communities belong to the age group below 11 years. Whereas 44% children i.e. 359 belong to age group above 11 years. The study further reveals that as against the 44% children belong to the age group of above 11 years 11% children (Boys and girls) belong to scheduled castes and scheduled tribes; whereas the percentage of the children of this category (Above 11 years) belonging to other communities is 33% again the percentage of girls belonging to SC/ST and the age group above 11 years is extremely poor i.e. 3% and that of males is 8%.

1.2.5.5.2 The percentage of males of other communities is 25% and that of female is 8%. The following

table explains this:

TABLE NO. 5

Distribution of children according to classifications who appeared at the Achievement Tests of both the level I and level II and on the basis of age groups of above 11years.

Characteristics	Children			
	SC/ST		Others	
	No.	%	No.	%
Age group above				
11 years (Male)	60	8	201	25
(Female)	26	4	72	8
Total Male/Female	86	12	273	33

1.2.6 Classifications of children on the basis of their achievement tests:

ACHIEVEMENT TESTS FOR LEVEL I :

1.2.6.1 The present study reveals that 61% children (i.e. 492) of all the communities belonging to both

the sex and both the age groups (Below 11 and above 11 years) appeared at the achievement tests for level I. Out of this 42% belong to the age group below 11 years whereas only 19% belong to the age group above 11 years.

1.2.6.2 The aforesaid percentage of children indicates that mostly children seek admission to NFE centres at the early age irrespective of attaining the age of 9 years, and dropout as soon as maturity develops to extend their cooperation or to help their parents in their vocation or try to find out some other vocation to augment the income of their family.

1.2.6.3 The study further reveals that as against the total number of children 492 of both the age groups who appeared at the level I tests 16% children (Male & Female) belong to Scheduled Castes and Scheduled Tribes whereas 45% children (male and female) belong to other communities. The percentage of male belonging to Scheduled Castes and Scheduled Tribes who appeared at level I belonging to both

the age groups of (Below 11 and above 11 years) is 11% whereas that of girls of SC/ST is only 5% which is quite insignificant and indicates the apathetic attitude of the parents of SC/ST towards sending their daughters to NFE Centres.

1.2.6.4 Out of the total percentage of 45% of children of other communities belonging to both the age groups the percentage of male is 30% whereas that of female is 15%. This indicates that girls of other sections of the society are more cautious of their education than those, who belong to SC/ST.

1.2.6.5 The study further reveals that out of the total number of 338 children who appeared at level I and belong to the age group below 11 years the percentage of male children belonging to SC/ST is 12% and that of other communities is 30%.

1.2.6.6.1 Similarly the percentage of the total No. 154 of children of all communities including SC/ST who belong to age groups above 11 years and who appeared at level I is 19% whereas that of belonging to SC/ST is very poor i.e. 4%. The

percentage of children of both the sex who belong to other communities and are above 11 years is 15%.

The following table explains this:

TABLE NO. 6

Distribution of children according to their classifications and age groups (Below 11 and above 11) who appeared at Level I.

Characteristics	Children			
	SC/ST Male/Female		Others Male/Female	
	No.	%	No.	%
Below 11 years				
(Male)	67	8	152	19
(Female)	31	4	88	11
Above 11 years				
(Male)	22	3	80	11
(Female)	10	1	35	5

...187/-

1.2.6.6.2 It is very encouraging to note that on the whole one third pupulation i.e. 164 of the whole lot of 492 appeared at the test level I and belong to both the age groups (Below 11 and above 11 years) 34% are the girls as against 67% of boys.

1.2.6.7. CATEGORIZATION OF PERFORMANCES:

The performance of children scoring the marks under different intervals has been categorised under two heads - I. Below average ranging between 0 to 10. II above average - ranging between 10 to 30.

1.2.7.1 As regards the performance of children in language Hindi for level I, the study reveals that the percentage of children of all communities (Male and Female of both the age group) who scored the marks ranging from 10-25 is 64% which is significantly satisfactory and the percentage of children scoring the marks ranging between 0-10 is only 36%.

1.2.7.2 The performance of children in language bears the testimony that the one of the main objectives of NFE programme to develop literacy

....188/-

among illiterate children.is fulfilled to the great extent.

1.2.7.3 The Table showing the frequency of marks obtained by children ranging from 0-5 to 20-25 is given below:

TABLE NO. 7

Distribution of children of both the age groups (of below 11 years and above 11 years) on the basis of their frequency of scores obtained in language - Hindi for level I and according to classification of (SC/ST Male & Female/others etc.)

Characteristics	NFE Children								
	SC/ST				Others				Total
	Male		Female		Male		Female		- Fre.
	No.	%	No.	%	No.	%	No.	%	
25-15	15	3	2	1	25	5	8	2	50
15-20	36	7	11	2	74	15	35	7	156
10-15	16	3	11	2	53	12	28	6	108
5-10	11	2	4	1	42	8	34	7	91
0-5	13	3	13	3	42	8	18	3	86
Total	91	-	41	-	236	-	123	-	491

1.2.7.4 The study further reveals that 36% children of all communities of both the sex male and female and belonging to both the age groups (Below 11 years and above 11 years) scored the marks ranging from 0-5 to 5-10 (i.e. very poor marks) and that of all children who scored the marks ranging from 10 to 25 significantly satisfactory is 64%.

The following table explains this:

TABLE NO. 8

Distribution of NFE learners of both the age groups of (Below 11 years and above 11 years) on the basis of their marks obtained under the categories of below average and above average and according to their classifications of SC/ST/ Male/Female.

	CHILDREN								
	SC/ST				Others				Total
	Male		Female		Male		Female		
	No	%	No.	%	NO	%	No.	%	
Frequency of scores under the category of below average									
0-10	24	5	17	3	84	17	52	11	36
Average (Above)									
10 to 25	67	14	24	5	152	31	71	14	64
Total	91	19	41	8	236	48	123	25	

1.2.7.5 On the basis of the aforesaid critical analysis the following inferences are drawn about the performance of children of both the age groups (Below 11 and above 11) in language Hindi for level I.

1. The Ratio between the high and poor scores is 64:36 or 16:9 which is significantly satisfactory. The performance of the children in language bears the testimony that one of the main objectives of NFE programme to develop literacy among illiterates is fulfilled to the great extent.

2. 14% girls of all communities scored poor percentage of marks ranging between 0 to 10, and 19% females of all communities scored higher percentage of marks ranging between 10 to 25, whereas 22% males of all communities scored poor percentage of marks and 45% males scored higher percentage of marks ranging between 10 to 25. The poor performance of females indicates that the more attention should be paid to the weaker

....191/-

section (females) of society in language i.e. Mother tongue which is the base of all sorts of knowledge.

1.2.8.1 Performances of NFE children belonging to the age group of below 11 years in language Hindi for level I.

1.2.8.2 As regards the performance of NFE children belonging to the age group of below 11 years in language Hindi for level I. The study reveals that 33% children of all communities scored the marks under the category of below average ranging between 0 to 10, whereas 67% scored the high percentage of marks under the category of above average ranging from 10 to 30. The ratio between the high and low achievers is 67:33 or 2:1 approximately.

The following Table explains this:

TABLE NO. 9

Distribution of NFE learners belonging to the age group of below 11 years on the basis of frequency of scores obtained in language

....192/-

Hindi according to classification SC/ST/Male/Female/Others.

Characteristics	Children								
	SC/ST				Others				
	Male		Female		Male		Female		Total
	No.	%	No.	%	No.	%	No.	%	
Frequency of Score.									
20-25	13	4	2	1	18	5	6	2	39
15-20	25	7	9	3	56	16	26	7	116
10-15	11	3	10	3	35	10	23	6	79
5-10	9	3	4	1	26	7	22	6	61
0-5	10	3	8	2	21	6	14	4	53
Total	68	20	33	9	156	45	91	26	348

1.2.8.3 The study further reveals that the percentage of children male and female belonging to SC/ST in scoring poor percentage of marks ranging from 0 to 10 is 9% whereas that of children of other communities is 24% which indicates that the children belonging to the weaker section of the

society i.e. SC and ST are poorer in language than their counterparts who belong to other communities.

Similarly the percentage of children scoring above average marks ranging between 10 to 25 is 67%. The contribution of the children of SC and ST is 20%. The following Table explains this:

TABLE NO. 10

Distribution of NFE children of the age group of below 11 years on the basis of their frequency of scores obtained under the categories of below average and above average and according to their classifications of SC/ST/Male/Female/Others.

Characteristics	NFE Learners								
	SC/ST				Others				Total
	Male		Female		Male		Female		
	No.	%	No.	%	No.	%	No.	%	
Frequency of scores Below average ranging between 0 to 10	19	6	12	3	47	14	36	10	114
Above average 10 to 25	49	14	21	6	109	31	55	16	234
Total	68		33		156		91		348

1.2.8.5 On the basis of the aforesaid critical analysis the following inferences are drawn about the performance of children belonging to the age group of below 11 years in language Hindi for level I.

i. The ratio between the higher and lower scores of all communities is 67:33 or 2:1 bears the testimony of the weakness of NFE system. The development of desired competencies in mother tongue - Hindi is the basic principle of any education system. The failure in achieving the objectives is very distressing and requires extraordinary and vigorous efforts in this direction.

ii. Further the ratio between the males and females of all communities scoring the poor percentage of marks is 19:14 which bears the testimony of the fact that females of all communities have contributed more than males of all communities towards poor performances in language Hindi for level I.

iii. The study further reveals that the percentage of children (males and females) of SC/ST

....195/-

scoring the poor percentage of marks ranging between 0 to 10 is 9%; whereas that of other communities is 24%. The ratio between the children of other communities and SC/ST contributing to poor performances is 24:9; which bears the testimony of the fact that the standard of children of SC/ST is inferior to that of the children of other communities in language Hindi for level I.

1.2.9.1 Pefformance of children belonging to the age group of above 11 years in language Hindi for level I.

1.2.9.2 As regards the performance of NFE children belonging to the age group of above 11 years in language Hindi for level I the study reveals that the percentage of children of all communities scoring the marks below average is 44% whereas that of the children of below 11 years is 33%. This indicates that the performance of children of above 11 years is poorer than that of below 11 years. Again the percentage of children of all communities belonging to above 11 years of age group and scoring the marks above average is 56%

...196/-

whereas that of below 11 years is 67%. This bears the testimony of the standard of children of above 11 years lowering down considerably.

1.2.9.2.1 The following table explains this:

TABLE NO. 11.

Distribution of children belonging to the age group of above 11 years according to their classifications SC/ST/Male/Females/other and the frequency of the scores obtained in the achievement test of language Hindi for level I.

	Children								
	SC/ST				Other				Total
	Male		Female		Male		Female		
	No.	%	No.	%	No.	%	No.	%	
Frequency of Scores									
20-25	2	1	-	-	7	5	2	1	11
15-20	11	8	2	1	18	13	9	6	40
10-15	5	4	1	1	18	13	5	4	29
5-10	2	1	-	-	16	11	12	8	30
0-5	3	2	5	4	21	15	4	3	33

.2.9.3 The study further reveals that the percentage of children of all communities belonging to the age group of above 11 years scoring the marks below average is 44% and that of above average is only 56%, which indicates that the standard has considerably lowered down. The following Table explains this:

TABLE NO. 12

Distribution of NFE learners belonging to the age group of above 11 years according to their performance based on the categories of below average and above average and according to their classification of SC/ST/Male/Females/Others.

Characteristics	Learners								
	SC/ST				Others				
	Male		Female		Male		Female		Total
	No.	%	No.	%	No.	%	No.	%	
Frequency Below average									
0-5 and 5-10	5	4	5	4	37	26	16	11	
Above average									
10-15 to 20-25	18	13	3	2	43	30	16	11	

.....198/-

TABLE NO. 13

1.2.9.4 Comparison in respect of the performance of children belonging to the age groups of below 11 years and above 11 years.

Distribution of NFE learners of all communities of both the sex according to their age groups below 11 years and above 11 years on the basis of their performance in language Hindi for Level I.

Characteristics	Learners			
	Age group below 11 years		Age Group above 11 years	
	No.	%	No.	%
Below average				
0 to 10	114	33	63	44
Above average				
10 to 25	234	67	80	56

1.2.9.5 On the basis of the aforesaid critical analysis the following inferences are drawn about the performance of children belonging to the age group of above 11 years in Language Hindi for level I.

....199/-

(i) (a) The ratio between the strength of males of SC/ST belonging to the age group of above 11 years i.e. 3:1 whereas it has been 68:33 or 2:1 approximately between those belonging to the age group of below 11 years. The decreasing strength of females of SC/ST indicates that as the females of SC/ST attain the age of above 11 years they dropout either to help their parents in their vocation to augment the income of their family, or to assist them in their household chores.

(b) The ratio between the strength of males and females of other communities belonging to the age group of above 11 years is 80:32 or 5:2.

(ii) The study reveals that males and females of SC/ST are equally responsible for poor performances in language Hindi for level I whose ratio is 4:4, whereas the ratio between the poor achievers (males and females) of

other communities is 26:11 which indicates that the males of other communities are more responsible for poor performances.

(iii) Only 2% females of SC/ST scored the higher percentage of marks ranging between 10 to 25 whereas 11% females contributed towards better performances.

On the whole the females of all communities have contributed towards poor performances more than the males.

(iv) The standard of the children belonging to the age group of above 11 years has considerably deteriorated in comparison to that of belonging to the age group of below 11 years.

(v) Only 56% children of all communities belonging to the age group of above 11 years scored in high percentage of marks ranging between 10 to 30; whereas 44% scored in low percentage of marked ranging between 0 to 10. The ratio between the high and low achieves is 56:44 which bears the testimony of the fact that the standard has very considerably deteriorated.

PERFORMANCE OF CHILDREN OF BOTH THE AGE GROUPS OF BELOW 11 AND ABOVE 11 YEARS IN ACHIEVEMENT TEST IN MATHEMATICS FOR LEVEL I:

1.3.1 As regards the performance of children of all communities belonging to both the age groups of (Below 11 and above 11 years) the study reveals that only 17% children male and females of all communities scored the marks under the category of below average (0-10) in Mathematics for level I, whereas 83% (Male & female) children of all communities scored the high percentage of marks i.e. under the category of above average ranging from 10 to 30 (10-15 to 25-30). The ratio between the high and low achievers is 83:17 i.e. almost 5:1 which is highly satisfactory.

1.3.1.1 The following Table explains this:

TABLE NO. 14

Distribution of NFE children belonging to both the age groups of below 11 and above 11 years according to their performance in Mathematics for

....202/-

level I on the basis of their classification SC/ST/Male/Female/Others.

Characteristics	CHILDREN								
	SC/ST				Others				Total
	Male		Female		Male		Female		
	No.	%	No.	%	No.	%	No.	%	
Frequency of Scores :									
Ranging under the category of above average									
25-30	2	1	-	-	3	1	1	1	6
20-25	41	8	10	2	91	19	60	12	202
15-20	24	5	12	2	70	14	26	5	132
10-15	12	2	7	1	31	6	14	3	64
Below average									
5-10	4	1	3	1	21	4	9	2	37
0-5	6	1	12	2	17	3	12	2	47

..3.1.2 TABLE NO. 15

Distribution of NFE children belonging to

both the age groups of below 11 and above 11 years according to their performance in Mathematics for level I on the basis of their scores obtained under the category of below average and above average and their classification of SC/ST/Male/Female/ and others.

Characteristics	NFE Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Performances under the category of Below average ranging between								
0-10	10	2	15	3	38	8	21	4
Above average Ranging between								
10-30	79	16	29	6	195	40	101	21

1.3.2.3 On the basis of the aforesaid critical analysis the following inferences are drawn about the performance of children of both the age groups of below 11 and above 11 in Mathematics of level I.

...204/-

1. 83% children of all communities scored the higher percentage of marks under the category of above average ranging between 10 to 30 and 17% scored the poor percentage ranging between 0 to 10. The ratio between high and low achievers is 83:17 or 5:1 approximately, which is remarkably significant and indicates that the standard of performances in Maths in superior to that of in language Hindi and that they have great aptitude, inclination, interest in numeracy.

2. Out of the total percentage of 27% males and females of SC/ST 5% males and females scored the poor percentage of marks ranging between 0 to 10 and 22% scored the higher percentage of marks ranging between 10 to 30. The ratio between higher and poor scores of SC/ST is 22:5, which indicates that the performance of SC/ST children is remarkably satisfactory in Maths for level I.

3. The ratio between the higher and poor scores of other communities is 61:12 or 5:1 which is significantly remarkable and bears the

testimony of the inclination, interest, aptitude and motivation of the children of other communities towards numeracy.

- The contribution of females of SC/ST towards poor performance is greater than males. The ratio between them is 3:2 (3% for females or 2% for males). Similarly the contribution of females towards better performances is less than that of males of SC/ST which bears the testimony of the poorer performance of females of SC/ST in Maths than males.

PERFORMANCE OF CHILDREN BELONGING TO AGE GROUP BELOW 11 IN MATHEMATICS FOR LEVEL I

As regards the performance of children males and females of all communities belonging to the age group of below 11 years, the study reveals that 86% children scored higher percentage of marks ranging between 10 to 30, whereas only 14% children (Male and Female) scored the below average marks ranging between 0-10. The ratio existing between the high and low achievers is 86:14 or almost 6:1.

1.3.3.2 The study further reveals that the percentage of children male and female belonging to SC/ST and scoring the higher marks ranging between 10-30 is 24% whereas that of the children of other communities is 63%. The ratio between the performance of children of other communities and that of SC/ST as it exists is 63:24. The aforesaid critical analysis of the performance of the children belonging to SC and ST and that of other communities bears the testimony of the contribution of the children of SC/ST in the better performance (i.e. scoring the marks of above average) ranging between 10 to 30 is less than that of poor performance, where they are more responsible for poor performances.

The following Table explains:

TABLE NO. 16

1.3.3.2.1 Distribution of learners belonging to age groups, below 11 years on the basis of their performance in Mathematics for level I and according to their classification of SC/ST/

....207/-

Male/Females/Other.

Characteristics	Children								
	SC/ST				Other				
	Male		Female		Male		Female		Total
	No.	%	No.	%	No.	%	No.	%	
Frequency of scores									
Ranging from to									
25-30	-	-	-	-	3	1	1	-	4
20-25	32	9	9	3	71	20	51	15	163
15-20	23	7	8	2	45	13	21	6	97
10-15	7	2	4	1	18	5	10	3	39
5-10	3	1	2	1	9	3	6	2	20
0-5	3	1	4	1	11	3	10	3	28

TABLE NO. 17

Distribution of NFE children belonging to the age group of below 11 years on the basis of their performance in Maths for level I and the marks scored under below average and above average and according to their classification of SC/ST/

.....208/-

Male/Female/Other.

Characteristics	NFE Children							
	SC/ST				Other			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of socres of below average ranging from 0-10	6	2	6	2	20	6	16	4
Above average Ranging from 10-30	62	18	21	6	137	39	83	23

1.3.3.4 From the aforesaid Table it is quite evident that the girls belonging to SC/ST are equally responsible for poor performance. The ratio between males and females of SC/ST scoring below average marks ranging between 0 to 10 is 50:50, whereas the ratio between the percentage of children male and females of SC/ST scoring above average marks ranging from 10 to 30 is 18:6 or 3:1.

1.3.3.5 On the basis of the aforesaid critical analysis the following inferences are drawn about

the performance of children belonging to the Age group of below 11 years in Mathematics for level I:

1. 86% children of all communities belonging to the age group of below 11 years have scored the higher percentage of marks under the category of above average ranging between 10 to 30 in Maths for level I whereas only 14% scored between 0 to 10. The ratio between the higher and lower achievers is 86:14 or more than 6:1 which is significantly remarkable.

2. The females of SC/ST are equally responsible for poor performance as the males of SC/ST are the ratio between them as exists is 2:2. Whereas the contribution of males of SC/ST is more towards better performance than females. The ratio between them is 18:6 or 3:1. Similar is the case of females of other communities, where males and females have contributed equally towards poor performance. The males of other communities have contributed more than females towards better performances.

...210/-

PERFORMANCES OF NFE CHILDREN BELONGING TO THE AGE GROUP OF ABOVE 11 YEARS IN MATHEMATICS FOR LEVEL I :

1.3.4.1 As regards the performance of NFE children belonging to the age group of above 11 years in Mathematics for level I, the study reveals that 74% children of all communities including SC/ST scored the high percentage of marks under the category of above average ranging between 10 to 30, whereas 26% of such children scored the low percentage of marks under the category of below average ranging from 0 to 10. The ratio between the high and low achievers is 74:26 or 3:1 approximately. The following Table explains this:

TABLE NO. 18

1.3.4.2 Distribution of NFE children belonging to the age group of above 11 years on the basis of their performance in mathematics for level I and according to their classifications of SC/ST/Male/Female/other.

Characteristics	Children							
	SC/ST				Other			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores ranging								
25-30	2	1	-	-	-	-	-	-
20-25	9	7	1	1	20	15	9	7
15-20	1	1	4	3	25	18	5	4
10-15	5	4	3	2	13	9	4	3
5-10	1	1	1	1	12	9	3	2
0-5	3	2	8	6	6	4	2	1

TABLE NO. 19

1.3.4.3 Distribution of NFE children belonging to the age group of above 11 years on the basis of their performance under the category of above average and below average and according to their classifications of SC/ST/Male/Female/Other.

Characteristics	Children							
	SC/ST				Other			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency below average ranging from 0 to 10	4	3	9	7	18	13	5	3
Above average Ranging from 10 to 30	17	13	8	6	58	42	18	13

1.3.4.4 On the basis of the aforesaid critical analysis the following inferences are drawn about the performance of children belonging to the age groups of above 11 years in Mathematics for level I.

1. The percentage of children of all communities including SC/ST and others (male/females) scoring the higher percentage of marks under the category of above average is 74% and that of scoring poor percentage of marks is 26%. The ratio between the higher and poor scores is 74:26 whereas that of belonging to the

below 11 years is 86:14. The critical analysis bears the testimony of the inferiority of standard of achievements of the children belonging to the age group of above 11 years. The standard has considerably deteriorated.

2. The children of SC/ST are more responsible for poor performance than those of other communities. The ratio between them children of other communities and SC/ST scoring the poor percentage of marks is 19:10 or 2:1.

Whereas the children of SC/ST and others are equally responsible for better performance.

1.4.1 PERFORMANCE OF CHILDREN OF BOTH THE AGE GROUPS OF BELOW 11 AND ABOVE 11 YEARS IN ACADEMIC ACHIEVEMENT TEST IN ENVIRONMENTAL STUDIES (SOCIAL STUDIES) FOR LEVEL I

1.4.1.1 As regards the performance of children of all communities and of both the sex male and female belonging to both the age groups of above 11 and below 11 years in Environmental studies for level I, the study reveals that 79% children of all communities belonging to both the age groups of

of below 11 years and above 11 years scored high percenta e of marks ranging between 10 to 30. The percentage of the children of all communities of both the age group under the category of below average marks ranging from 0-10 is 21%. The ratio between the significantly high percentage of scores and that of poor performance is 79:21 which is 4:1 approximately. The following Table explains this:

TABLE NO. 20

1.4.1.2 Distribution of NFE children belonging to both the age groups of above 11 and below 11 years on the basis of their frequency of scores in environmental studies for level I and according to classifications of SC/ST/Male/Female/others.

Characteristics	Children								
	SC/ST				Other				Total
	Male		Female		Male		Female		
	No.	%	No.	%	No.	%	No.	%	
Frequency of Scores Ranging from									
25-30	2	1	-	-	1	0	1	0	4
20-25	29	6	2	1	76	16	30	6	137

15-20	25	5	14	3	62	12	41	8	140
10-15	16	3	8	2	48	10	27	6	99
5-10	10	2	6	1	35	7	8	2	59
0-5	4	1	10	2	16	3	14	3	44
Total	86	18	40	8	236	49	121	25	483

TABLE NO. 21

1.4.1.3 Distribution of children belonging to both the Age groups of below 11 years and above 11 years on the basis of their performances under both the categories i.e. below average ranging between 0-10 and above average marks ranging between 10 to 30 according to their classifications of SC/ST/Male/Females/Other.

Characteristics	Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No	%	No.	%	No.	%	No.	%
Frequency of Scores under the category of below average ranging from 0-10	14	3	16	3	51	11	22	4
Above Average ranging from 10-30	72	15	24	5	185	38	99	21

...216/-

1.4.1.4 On the basis of the aforesaid critical analysis the following inferences are drawn about the performances of children of both the age groups of below 11 and above 11 years in Environmental studies for level I.

1. The ratio betwe.n the high and poor scorers of all communities (male & females) in Environmental studies for level I is 79;21 or 4:1 approximately. This bears the testimony of the aptitude inclination, interest motivation of all children belonging to both the age groups towards environmental studies for level I.

2. The children of SC/ST contributed more towards poor performance than that of other communities. The ratio between the children of other communities and SC/ST scoring the poor percentage of marks ranging between 0 to 10 is 15:6 or 5:2 whereas it is 59:20 or 3:1 in scoring the higher percentage of marks ranging between 10 to 30, which bears the testimony of the contribution of SC/ST towards higher percentage is less than those of other communities.

3. The females of all communities equally contributed towards poor performances than that of above average.

The ratio between the percentage of females and males of all communities scoring the poor percentage marks ranging between 0 to 10 is 14:8 or 2:1 approximately.

Similarly the percentage of females of all categories scoring the higher percentage of marks ranging between 10to 30 in Environmental studies for level I is 26% and that of males is 53%. The ratio between the males and females of all communities scoring the higher percentage of marks is 53:26 or 2:1 which bears the testimony of their equally contribution towards poor and better performances.

PERFORMANCE OF CHILDREN BELONGING TO THE AGE GROUP OF BELOW 11 YEARS IN THE ACADEMIC ACHIEVEMENT TEST OF LEVEL I IN ENVIRONMENTAL STUDIES.

1.4.2.1 As regards the performance of children belonging to the Age group of below 11 years the

study reveals that 29% children of SC and ST male and female appeared at the academic achievement test of level I in Environmental studies, whereas 71% children of other communities appeared at it. The ratio between the percentage of children of other communities and that of SC and ST is 71:29.

1.4.2.2 The study further reveals that 82% children of all communities belonging to the age group of below 11 years scored higher marks ranging from 10 to 30 and only 18% children of the aforesaid category scored the lower percentage of marks ranging between 0 to 10. The ratio between the higher and lower scores is 82:18 which is 5:1 approximately. It is quite evident from the Table 13 B I given below whereas the ratio between the higher and lower scores of all communities belonging to both the age groups (Below 11 and above 11 years) is 79:21 which is 4:1 approximately. This indicates that the percentage of higher scorers is greater than that of the children belonging to both the age groups.

TABLE NO. 21

1.4.2.3 Distribution of children belonging to the age group below 11 years on the basis of their performances in Environmental studies for level I according to their classification of SC/ST/Male/Female/other. The frequency of percentage is calculated on the basis of their performances in the different categories.

Characteristics	NFE Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No	%	No	%	No.	%
Frequency of Scores under different Intervals								
25-30	-	-	-	-	-	-	1	1
20-25	24	36	2	6	57	37	26	30
15-20	21	31	12	35	44	28	27	31
10-15	11	16	7	21	31	20	20	23
5-10	8	12	4	12	20	13	5	6
0-5	3	5	9	26	3	2	8	9

TABLE NO. 22

1.4.2.4 Distribution of children of the age group of below 11 years according to their performance in score obtained under the category of below average ranging between 0-10 and above average ranging between 10-30 and on the basis of their classifications of SC/ST/Males/Females/Others.

Characteristics	Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of score under the category below average ranging between								
0-10	11	3	13	4	23	7	13	4
Above average Ranging between								
10-30	56	16	21	6	132	38	74	22

....221/-

1.4.2.5 On the basis of the aforesaid critical analysis the following inferences are drawn about the performances of children belonging to the age group of below 11 years in Environmental studies for level I.

1. 82% children of all communities belonging to the age group of below 11 scored the higher percentage of marks under the category of above average ranging between 10 to 30 level I, whereas only 18% scored the poor percentage of marks ranging between 0 to 10. The ratio between the higher and lower achievers is 82:18 or 3:1 approximately which is significantly remarkable and is better than that of the children belonging to both the age group of below 11 and above 11 years which is 4:1.

2. The children of SC/ST belonging to the age group of below 11 years are more responsible for poor performance ranging between 0 to 10 than those of other communities. The ratio between the poor scorers of other communities

and SC/ST is 10:7 whereas it is 15:6 in the case of the aforesaid children belonging to both the age groups.

Moreover, the children of SC/ST have contributed more in scoring the higher percentage of marks ranging between 10 to 30, the ratio is 60:22 than those belonging to both the age groups where the ratio is 58:20.

3. The females of SC/ST have contributed more than males towards poor performances. The ratio between them is 4:3 whereas it is 3:3 in case of the children of SC/ST belonging to both the age groups.

4. The contribution of females of all communities including SC/ST towards better performances is quite insignificant. The ratio between the percentage of scores (males and females) of higher marks ranging between 10 to 30 is 55:28 or 2:1 approximately.

PERFORMANCES OF CHILDREN BELONGING TO THE AGE GROUP ABOVE 11 YEARS IN ACADEMIC ACHIEVEMENT TEST OF ENVIRONMENTAL STUDIES FOR LEVEL I.

1.4.3.1 As regards the performance of the children belonging to the age group above 11 years in the academic Achievement Test of level I in Environmental studies the study reveals that 82% children (male and female) of other communities appeared at the Academic Achievement Test of level I in Environmental studies and only 18% children of SC/ST appeared at it. The ratio between their percentage exists as 82:18.

1.4.3.2 The study further reveals that the percentage of the children male and females of all communities belonging to the age group above 11 years scoring the higher percentage of marks of above average ranging from 10 to 30 is 69%. Whereas the percentage of children of above 11 years and of all communities scoring the marks under the category of below average ranging from 0 to 10 is 31%. The ratio between the scorers of higher percentage

of marks in the category below average is 69:31 which is almost 2:1 which is quite evident from the Table No. 23 given below whereas the ratio between the percentage of higher scorers and lower scorers of the age group below 11 years is 82:18 which is almost 5:1 as is quite evident from the Table No.22 given on the preceding pages. From the aforesaid critical analysis it is quite evident that the performance of children belonging to the age group of above 11 years has considerably deteriorated.

The following Table explains this:

TABLE NO. 23

1.4.3.3 Distribution of children of the age group of above 11 years according to their performance in Environmental studies for level I under both the category of below average ranging between 0 to 10 and above average ranging from 10 to 30 and according to their classifications of SC/ST/ Males/Females/other.

Characteristics	Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No	%	No	%	No.	%	No.	%
Frequency of Scores under the category below average ranging from 0 to 10	3	2	3	2	28	20	9	7
Above average ranging from 10 to 30	16	11	3	2	53	38	25	18

TABLE NO. 24

1.4.3.4 Distribution of children belonging to the age group of above 11 years on the basis of their performance in Environmental studies for level I and according to their classifications of SC/ST/Male/Female/Other.

...226/-

Characteristics	Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of Scores ranging between:								
25-30	2	1	-	-	1	1	-	-
20-25	5	4	-	-	19	14	4	3
15-20	4	3	2	1	16	11	14	10
10-15	5	4	1	1	17	12	7	5
5-10	2	1	2	1	15	11	3	2
0-5	1	1	1	0	13	9	6	4

1.4.3.5. On the basis of the aforesaid critical analysis the following inferences are drawn about the performances of children belonging to the age group of above 11 years in Environmental studies for level I.

1. The standard of the performance of children belonging to the age group of above 11 years is considerably deteriorated in comparison to that of the children belonging to the age group of below 11 years.

The ratio between the higher and poorer scores of marks of the children of all communities belonging to the age group of above 11 years is 69:31 whereas 82:18 in case of the children belonging to the age group of below 11 years, which indicates that as the children attain the age of above 11 years their involvement in household affairs become greater consequently due attention is not paid, towards studies.

2. The study reveals that the children of other communities have contributed considerably towards poor performances.

The ratio between the percentage of children of other communities and SC/ST scoring the poor percentage of marks ranging between 0 to 10 is 26:4 or 7:1 approximately.

3. The children of SC/ST have contributed significantly towards better performances in comparison to those of other communities. The ratio between the higher scorers of other communities and SC/ST is 56:14 or 4:1.

PERFORMANCE OF NFE CHILDREN IN ACADEMIC ACHIEVEMENT TEST FOR LEVEL II IN LANGUAGE - HINDI

5.1 On the perusal of the preceding pages it is quite evident that 60% NFE children appeared at the Academic Achievement Test for level I (meant for the NFE children who have covered up the entire course prescribed for one year in the syllabus developed for NFE programme in Rajasthan. Whereas only 40% children male and female of all communities belonging to both the age group i.e. below 11 years and above 11 years appeared for level II. The ratio between the percentage of children appeared in Academic Achievement test for level I and that of those who appeared in level II is 60:40 or 3:2 i.e. one third of the whole population who attended the NFE programme for one year has

dropped out. This bears the testimony of the tendency of dropping out after having attended the NFE centres for one year.

5.1.2 The study further reveals the percentage of children of all communities and belonging to both the age groups who obtained the scores under the category of below average ranging from 0-10 is 27% whereas that of scoring the marks under the category of above average ranging from 10 to 25 is 73%. The ratio between the percentage of higher and lower scores is 73:27 which is 3:1 approximately. Whereas the ratio between the percentage of higher scorers and lower scorers of level I is 2:1

The aforesaid critical analysis indicates that the standard of academic achievement of NFE children who covered up the course prescribed for NFE programme for two years has considerably improved.

1.5.1.3 The following Table explains this:

TABLE NO. 25

Distribution of children of both the age groups below 11 years and above 11 years on the basis of their freqency of scores obtained in the academic achievement test for level II in language Hindi according to classifications of SC/ST/Males/Females/ others.

Characteristics	Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores ranging between								
20-25	8	3	1	1	18	6	6	2
15-20	32	10	6	2	57	18	11	3
10-15	16	5	7	2	51	16	17	5
5-10	6	2	4	1	40	13	12	4
0-5	4	1	7	2	13	4	1	0

....231/-

1.5.1.4 The study further reveals that 61% percentage of children males and females of all communities and belonging to both the age groups (below 11 and above 11 years) scored the marks under the category of above average ranging between 10-25 whereas 39% children scored the marks under the category of below average ranging between 0-10. The ratio between the percentage of higher scorers and lower scorers is 61:39 approximately 3:2. This critical analysis bears the testimony of the better performances of children who have attended the NFE centres for more than two years, than those who attended only for one year because ratio between higher and low performance of level I children has been 64:36 i.e. 2:14:approximately.

1.5.1.5 The following Table explains this:

TABLE NO. 26

Distribution of children of both the age groups of below 11 years and above 11 years on the basis of their performance in language Hindi for level II according to their classifications of SC/ST/Males/ Females/others and their frequency of marks scored

under the category of below average ranging between 0-10 and above average ranging between 10-25.

Characteristics	Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under the category below average ranging from								
0-10	10	3	11	3	53	17	13	4
10-25	56	18	14	4	126	40	34	11

1.5.1.6 On the basis of the aforesaid critical analysis the following inferences are drawn about the performance of children belonging to both the age groups in language Hindi for level II.

1. The performance in language Hindi for level II is significantly better than that of the level I.

The ratio between the percentage of Higher scorers and lower scorers of language Hindi for level II is 73:27 or 3:1 approximately, whereas the ratio between the Higher and lower scorers of level I is 464:36 or 2:1 approximately.

The critical analysis bears the testimony of the better performance of children who have attended the NFE centres for more than two years than those who attended only for one year.

2. The performance of girls of SC/ST is poorer than that of other communities.

3. The contribution of females of all communities towards poor performance is more than that of males and their contribution better performance is also poorer than that of males.

1.5.2.1 Performance of NFE children belonging to age group below 11 years in Academic Achievement Test in language Hindi for level II.

1.5.2.2 As regards the performance of children belonging to age group below 11 years in academic achievement

test in language Hindi for level II , the study reveals that only 39% children of the aforesaid age group of below 11 years appeared at the academic achievement test in language Hindi for level II as against 61% children belonging to the age group above 11 years, who appeared at the aforesaid test. The ratio between the children of both the group (above 11 years and below 11 years) is 61:39 which is 3:2 approximately.

1.5.2.3 It is quite evident from this ratio that greater number of children attain the age above 11 years as they cover up the whole course prescribed for two years of primary level of NFE programme.

1.5.2.4 The study further reveals that 36% children male and females of SC/ST belonging to age group below 11 years have appeared at the Academic Achievement Test in language Hindi for level II, as against 64% children male and female of other communities. The ratio between the children male

and female of other communities and those belonging to SC and ST of the age group below 11 years is 64:36 which is 2:1 approximately. This bears the testimony of the awareness, motivation, enthusiastic, encouragement, attachment, incentive, aptitude and inclination of children of SC/ST for availing of the facilities of education being provided through NFE programme.

1.5.2.5 The study further reveals that 9% girls of SC/ST have appeared at the aforesaid test as against the 27% boys of SC/ST belonging to the age group below 11 years. The ratio between the males and females of SC/ST is 27:9 or 3:1 which is significantly encouraging to be equally enthusiastic and aspirants for getting education through NFE programme as the girls of other communities, whose percentage is 48%. The ratio between the males and females of other communities is 48:16 or 3:1.

1.5.2.6 As regards the performance of children male and female of all communities who belong to the

age group below 11 years in academic achievement test in language Hindi for level II, the study reveals that 61% children of all communities have scored very high percentage of marks ranging between 10-25 whereas only 39% children scored poor marks ranging from 0-10. The ratio between the good and poor percentage of scores is 61:39 or 3:2 approximately.

1.5.2.7- The study further reveals that the children of all communities belonging to the age group below 11 years have equally scored the marks ranging between 10-30. The percentage of such scores is 28% out of 39% children who scored poor marks only 11% children scored the marks ranging between 0-5 and 27% children scored the poor marks ranging between 5-1.0.

1.5.2.8 The critical analysis of the performaces of children belonging to the age group below 11 years bears the testimony of males and females of SC/ST and other are equally aspirant for education through NFE programme.

The following Table explains this:

TABLE NO. 27

1.5.2.9 Distribution of children belonging to the age group below 11 years on the basis of their performances in Academic Achievements Test in language Hindi for level II according to their classifications of SC/ST/Males/ Females/Others.

Characteristics	NFE Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores								
20-25	3	2	-	-	3	2	-	-
15-20	15	12	3	2	11	9	6	5
10-15	9	7	4	3	18	15	4	3
5-10	4	3	2	2	19	15	9	7
0-5	3	3	2	2	8	7	1	1

1.5.2.10 It is quite evident from the aforesaid Table that larger number of children of all communities have scored very good marks ranging between 15-20 and the equal number of children have scored the marks ranging between 10-15 only 14% children scored the poor marks ranging between 0-5.

1.5.2.11 The contribution of girls in poor as well as better performances is equally responsible as is quite evident from the Table given below:

TABLE NO. 28

Distributinn of children belonging to the age group below 11 years on the basis of their performance in language Hindi for level II according to their scores of marks obtained under the category of below average ranging from 0-10 and higher percentage of marks of above average ranging between 10-25 and on the basis of their classifications of SC/ST/Male/Female/others.

.....239/-

Characteristics	Children (Below 11 years)							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under the category below average ranging								
0-10	7	6	4	3	27	22	10	8
Above average Ranging								
10-25	27	22	7	5	32	26	10	8

1.5.2.12 The aforesaid table reveals that 39% children of all communities male and female of below 11 years Age group have scored the poor percentage of marks ranging between 0 to 10, whereas the percentage of children scoring very good marks ranging between 10 to 25 is 61%. The ratio between the higher and poorer scorers is 61:39 or 3:2.

1.5.2.13 On the basis of the aforesaid critical analysis the following inferences are drawn about the performance of children belonging to the age group of below 11 years in language Hindi for level II.

1. The ratio between the males oand females of other communities and that of SC/ST the age groups below 11 years who appeared at the academic achievement test in language Hindi for level II is 64:36 or 2:1 approximately, which bears the testimony of the awareness, motivation, enthusiasm, encouragement, incentive, aptitude, attachment and inclination of children of SC/ST for availing of the facilities of education being provided through the NFE programme.

2. The males and females of SC/ST and others are equally aspirant for education through NFE programme.

3. 27% children of SC/ST scored high percentage of marks ranging between 10 to 25 as against 34% children of other communities. This bears the testimony of the significant contribution of SC/ST towards better performance.

...241/-

1.5.3.1 PERFORMANCE OF NFE CHILDREN BELONGING TO THE AGE GROUP OF ABOVE 11 YEARS IN LANGUAGE HINDI FOR LEVEL II:

1.5.3.2 As regards the performances of NFE children belonging to the age group of above 11 years in language Hindi for level II the study reveals that 80% children of all communities scored the high percentage of marks under the category of above average ranging between 10 to 30, whereas 20% of such children scored the low percentage of marks under the category of below average ranging from 0 to 10. The ratio between the high and low achievers is 80:20 or 4:1 which is significantly and satisfactory.

1.5.3.3 The aforesaid critical analysis explicity signifies the outstanding performance of children of all communities belonging to the age group of above 11 years in Academic Achievement Test for level II in language Hindi. The following Table explains this:.

TABLE NO. 29

1.5.3.4 Distribution of children belonging to the age group of above 11 years on the basis of their performance in the academic achievement test in language Hindi for level II according to their frequency of scores under various categories of marks ranging from 0-5 to 10-25 and their classifications of SC/ST/Males/Females and Others.

Characteristics	Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of Scores under the different categories								
20-25	5	3	1	1	15	8	6	3
15-20	17	9	3	2	46	24	5	3
10-15	7	4	3	2	33	17	3	1
5-10	2	1	2	1	21	11	13	7
0-5	1	1	5	3	5	3	-	-

TABLE NO. 30

1.5.3.5 Distribution of NFE children belonging to the age group of above 11 years on the basis of their performances in language Hindi for level II under both the categories of below average ranging between 0-10 and above average ranging between 10-25 and according to their classifications of SC/ST/Male/Female and others.

Characteristics	NFE Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under the category of Below average Ranging from								
0-10	3	2	7	3	26	13	3	2
Above average								
10-25	29	15	7	4	94	49	24	12

2.5.3.6 The aforesaid Table bears the testimony of the facts that the contribution of girls of both the categories (SC/ST and others) is quite insignificant for outstanding performances. But the girls of SC/ST are most responsible for poor performances than the boys of SC/ST.

2.5.3.7 On the basis of the aforesaid critical analysis the following inferences are drawn about the performance of children belonging to the age group of above 11 years in language Hindi for level II.

1. The study reveals that 80% children of all communities belonging to the age group of above 11 years scored the higher percentage of marks under the category of above average ranging between 10 to 25, whereas only 20% children scored the marks ranging between 0 to 10. The ratio between higher and lower scorers is 80:20 or 4:1 which is significantly satisfactory.

   The ratio between the higher and lower scorers of same category of children belonging

to the age groups of below 11 years is 61:39 or 3:2 approximately and the ratio between the higher and low achievers belonging to both the age groups of above 11 years and below 11 years in language Hindi for level 11 is 72:28 or 3:1 approximately.

The outstanding performances of the children of all communities belonging to the age group of above 11 years in language Hindi for level II bears the testimony of their aspirations being fulfilled. After having developed the desired competencies at par with the children of class V of formal schools the children feel motivated and encouraged.

2. The contribution of females of SC/ST and others is quite significant for outstanding performances but the females of SC/ST are more responsible for poor performances than the males of SC/ST.

1.6.1 PERFORMANCES OF NFE CHILDREN IN MATHEMATICS FOR LEVEL II AND BELONGING TO BOTH THE AGE GROUP BELOW 11 AND ABOVE 11 YEARS.

1.6.1.1 As regards the performances of the children

males and females of both the age group in academic achievements for level II in Mathematics the study reveals that 36% children have scored poor percentage marks under the category of below average ranging from 0 to 10. Whereas the percentage of children scoring the higher marks ranging between 10 to 30 is 64%. The ratio between the higher scores and lower scores is 64:36 or 2:1 approximately. Whereas the ratio between the higher and lower scorers in level I in Maths has been 83:17 or 5:1 approximately from the aforesaid comparison it is quite evident that the standard of the performances of children of all communities in Mathematics of level II has very considerably deteriorated. The following Table explains:

TABLE NO. 31

1.6.1.2 Distribution of children belonging to both the age groups of below 11 years and above 11 years on the basis of their performances in Mathematics for level II and according to their classification of SC/ST/Male/Female and others.

Characteristics	NFE Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under different intervals ranging from								
25-30	2	1	-	-	3	1	-	-
20-25	11	4	-	-	17	5	4	1
15-20	17	5	2	1	44	14	13	4
10-15	22	7	-	-	53	17	16	5
5-10	6	2	5	2	28	9	14	4
0-5	4	1	10	3	41	13	5	2

1.6.1.3 It is quite evident from the aforesaid table that the performance of girls of SC/ST in Mathematics II is very poor. Only 1% females of SC/ST scored the marks ranging between 15-20 whereas 5% girls of SC/ST scored the poor percentage of marks ranging between 0-10.

....248/-

1.6.1.4 Moreover, the ratio between the poor scorers of other communities indicates that the children of SC and ST have contributed very considerably towards the poor performances in Maths.

1.6.1.5 Further ratio between the higher scores of other communities and those belong to SC and ST is 48:17 or 3:1 approximately, which bears the testimony of the insignificant contribution of SC and ST children towards better performances.

1.6.1.6 The following Table explains this:

TABLE NO. 32

Distribution of children of both the age group of below 11 years and above 11 years on the basis of the performance under the both categories of below average and above average in Mathematics for level II and according to their classification of SC/ST/Male/Female/others.

...249/-

Characteristics	Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under the category								
i) Below average ranging between								
0-10	10	3	15	5	69	22	19	6
ii) Above average								
10-20	52	17	2	1	117	37	33	10

1.6.1.7 From the aforesaid Table it is quite evident that 36% children of all communities have scored the marks ranging between 0-10 whereas only 64% children have scored higher percentage of marks ranging from 10-30. This bears the testimony about the poor performance of all children in Maths

...250/-

for level II. Moreover, the performance of females of SC/ST has been quite insignificant.

1.6.1.8 On the basis of the aforesaid critical analysis the following inferences are drawn about the performances of NFE children of both the age groups of below 11 years and above 11 years in Mathematics for level II.

1. The ratio between the strength of children (Belonging to both the age group) of other communities and that of SC/ST who appeared at the academic achievement test in Maths for level II II is 75:25.

2. The ratio between the higher and low achievers is 64:36 whereas the ratio between them in maths for level I is 83:17 or 5:1. From the aforesaid comparison it is quite evident that the standard of performance of children of all communities in Mathematics for level II has very considerably deteriorated.

3. The contribution of the children of SC/ST towards higher performances is quite

insignificant. The percentage of higher achievers (ranging between 10 to 30) of other communities is 47% whereas that of SC/ST is 17%. The ratio between the higher achievers of other communities and that of SC/ST is 47:17 or 3:1 approximately.

4. The performances of females of SC/ST in Mathematics for level II is very poor. Only 1% females of SC/ST scored the higher percentage of marks ranging between 10 to 30. Whereas 5% of females of SC/ST scored the poor percentage of marks ranging between 0 to 10.

5. The ratio of higher achievers of other communities and that of SC/ST is 48:17 or 3:1 approximately, which bears the testimony of the insignificant contribution of SC/ST towards better performances.

PERFORMANCES OF CHILDREN BELONGING TO THE AGE GROUP BELOW 11 YEARS IN THE MATHEMATICS OF LEVEL II:

1.6.2.1 As regards the performances of the children belonging to the age group of below 11 years the study reveals that only 40% children of all communities and belonging to the age group of below 11 years have appeared at Mathematics for level II whereas 60% children belonging to the age group of above11 11 years have appeared at the aforesaid test, which bears the testimony of the comprehension and understanding developed among the NFE chilaren after attaining the age of above 11 years.

1.6.2.2 The study further reveals that 41% children of below 11 years have scored the marks under the category of below average ranging between 0-10, whereas 59% children scored the higher percentage of marks ranging from 10 to 30. The ratio being 59:41 or 3:2.

1.6.2.3 The following Table explains this:

TABLE NO. 33

Distribution of children belonging to the

age group of below 11 years on the basis of their performances in Mathematics for level II under different categories of marks and according to their classifications of SC/ST/Males/Females/ [illegible] others.

Characteristics	Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores								
25-30	-	-	-	-	1	1	-	-
20-25	3	2	-	-	4	3	-	-
15-20	6	5	1	1	13	10	6	5
10-15	16	13	-	-	16	13	9	7
5-10	5	4	1	1	13	10	8	6
0-5	1	1	2	2	17	13	5	4

1.6.2.4 The study further reveals that only 28% children of SC/ST belonging to the age group below 11 years have appeared in Maths as against 72% children of other communities. Moreover,

....254/-

7% children of SC/ST have contributed towards poor performance as against 34% children of other communities. The ratio between them as exists is 34:7 or 5:1 approximately. This indicates that the children belonging to other communities are more responsible for poor performances.

1.6.2.5 The study further reveals that 20% children of SC/ST have scored the higher percentage of marks ranging between 10-30 as against 39% children of other communities. The aforesaid critical analysis bears the testimony of significant contribution of SC/ST children for higher performances.

1.6.2.6 Further the contribution of females of SC/ST has been quite insignificant which the following Table explains this:

TABLE NO. 34

Distribution of children belonging to the age group of below 11 years on the basis of their performances in Mathematics for level II under both the categories of below average ranging

from 0-10 and above average ranging from 10-30 and according to their classifications as SC/ST/ Males/Females/Others.

CHARACTERISTICS	CHILDREN							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under the category below								
0-10	6	5	3	2	30	24	13	10
Above average								
10-30	25	19	1	1	34	27	15	12

1.6.2.7 On the basis of the aforesaid critical analysis the following inferences are drawn:-

1. 41% children of all communities scored the poor percentage of marks ranging between 0 to 10 whereas 59% children scored the higher percentage of marks under the category of

of above average ranging from 10 to 30. The ratio between the higher and poor scorers is 59:41 or 3:2 approximately which bears the testimony of the poor performances of children and their considerably deteriorated standard in Mathematics.

2. 20% children of SC/ST have scored the higher percentage of marks ranging between 10 to 30 as against 39% children of other communities. The ratio between the higher achievers of other communities and that of SC/ST is 39:20 or 2:1 which bears the testimony of significant contribution of the children of SC/ST towards outstanding performances. But the contribution of females of SC/ST is quite insignificant. Moreover, only 7% children of SC/ST have contributed towards poor performances as against 34% children of other communities. The ratio between the poor achievers of other communities and

....257/-

that of SC/ST is 34:7 or 5:1 which indicates that the children of other communities are more responsible for poor performance than SC/ST.

PERFORMANCES OF CHILDREN BELONGING TO THE AGE GROUP OF ABOVE 11 YEARS IN MATHEMATICS OF LEVEL II:

1.6.3.1 From the perusal of the preceding pages it is quite evident that the percentage of children belonging to the age group of above 11 years who have appeared at the academic achievement test in Mathematics of level II is higher than that of the children who belonged to the age group of below 11 years. The study further reveals that the performances of children belonging to the age group of above 11 years are far far better than that of the children of below 11 years. The percentage of children scoring the poor percentage of marks rainging between 0-10 is 32% whereas 68% children of this group have scored the higher percentage of marks ranging between 10-30 which is quite evident from the Table given below:

TABLE NO. 35

1.6.3.2 Distribution of children belonging to the

age group of above 11 years on the basis of their performances in Mathematics of level II and according to their classification of SC/ST/Male/Females/others etc.:

Characteristics	Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores								
25-30	2	1	-	-	2	1	-	-
20-25	8	4	-	-	13	7	4	2
15-20	11	6	1	1	31	16	7	4
10-15	6	3	-	-	37	19	7	4
5-10	1	1	4	2	15	8	6	3
0-5	3	2	8	4	13	13	-	-

1.6.3.4 The study reveals that 68% children of all communities scored the higher percentage of marks ranging from 10 to 30 whereas only 32% scored

.....259/-

poor percentage of marks ranging between 0 to 10. The ratio between them is 68:32 or 2:1 approximately which bears the testimony of the standard of performance of children deteriorating as compared with that of level I. The following Table explains this:

TABLE NO. 36

1.6.3.4 Distribution of children belonging to the age group of above 11 years on the basis of their performance in Mathematics for level II under both the categories below average rainging between 0-10 and above average ranging between 10-30 and according to their classifications of SC/ST/Male/Female/Others.

Characteristics	Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under the category of below average Ranging from								
0 to 10	4	2	12	6	39	21	6	3
Above average								
10-30	27	14	1	1	83	44	18	9

.....260/-

1.6.3.5 It is quite evident from the aforesaid Table that 8% children belonging to SC/ST contributed towards the poor performances in Maths as against 24% children of other communities. The ratio between their percentage as exists is 24:8 or 3:1 which bears the testimony of the poor performance of children of SC/ST.

1.6.3.6 The study further reveals that the contribution of female children of SC/ST is quite insignificant for the better performance, only 1% girls have contributed towards better performance by scoring the marks ranging between 10-30. Moreover, 15% children of SC/ST have contributed towards the better performances by scoring the marks ranging between 10-30 as against 53% children of other communities. The ratio between their percentage as exists is 53:15.

1.6.3.7 On the basis of the aforesaid critical analysis the following inferences are drawn about the performance of children belonging to the age groups of above 11 years in Mathematics for level II.

1. The study reveals that 68% children of all communities belonging to the age group of above 11 years have scored the higher percentage of marks ranging between 10 to 30 whereas 32% children scored the poor percentage of marks ranging between 0 to 10. The ratio between the higher and poor achievers is 68:32 or 2:1 approximately, which is quite encouraging and significantly remarkable in comparison to the performances of the children belonging to both the age groups and those belonging to below 11 years.
2. 15% children of SC/ST have contributed towards better performances as against 53% of other communities by scoring the marks ranging between 10 to 30 which is quite significant. But the contribution of females of SC/ST towards better performances is quite insignificant. Only 1% females of SC/ST have scored the marks under the aforesaid category.

PERFORMANCES OF NFE CHILDREN IN ENVIRONMENTAL STUDIES FOR LEVEL II:

1.7.1.1 As regards the performances of NFE children of all communities belonging to both the age groups of below 11 and above 11 years in Environmental studies for level II, the study reveals that 85% children scored the higher percentage of marks under the category of above average ranging from 10 to 30, whereas only 15% children scored the low percentage of marks under the below average ranging from 0 to 10. The ratio between the high and low achievers is 85:15 or 6:1 approximately and bears the testimony of the motivation, encouragement, inclination and aspirations of NFE children towards education.

1.7.1.2 The following Table explains this:

TABLE NO. 37

Distribution of NFE children belonging to both the age groups of below 11 and above 11 years on the basis of their performances in environmental

studies for level II and according to their classifications of SC/ST/Male/Female/and others.

Characteristics	NFE Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under various intervals								
25-30	1	-	-	-	2	1	1	-
20-25	20	6	1	-	39	12	8	3
15-20	26	8	4	1	70	21	34	10
10-15	12	4	6	2	44	13	12	4
5-10	2	1	9	3	29	9	3	1
0-5	1	-	-	-	5	2	-	-

1.7.1.3 The study further reveals that only 4% children of SC/ST contributed towards poor performances scoring the marks ranging from 0-10 whereas 11% children of other communities scored the poor percentage f marks ranging from 0-10. The ratio

....264/-

between the scorers belonging to other communities and that of SC and ST is 11:4 i.e. 3:1 approximately. Whereas the ratio between the higher a-chievers of both the categories of children is 64:21 or 3:1 approximately. The critical analysis of the scores obtained by the children of both the categories lower and higher indicates that the children of SC/ST have equally contributed the lower and higher achievements.

1.7.1.4 The following Table explains this:

TABLE NO. 38

Distribution of children of both the age groups of below 11 years and above 11 years on the basis of their performances under both the categories of marks of below average ranging from 0-10 and above average ranging from 10-30 and according to their classifications of SC/ST/Males/ Females/others.

Characteristics	NFE Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequencies of scores under the category of below average ranging between								
0-10	3	1	9	3	34	10	3	1
10-30	59	18	11	3	155	47	55	17

1.7.1.5. It is quite evident from the aforesaid Table that only 1% males children (boys) of SC/ST contributed towards poor performance whereas 3% girls have contributed towards the same. This bears the testimony of the poor performances of girls of SC/ST whereas 18% boys of SC/ST contributed towards higher performance and only 3% girls of SC and ST scored the higher percentage of marks ranging between 110 to 30.

....266/-

1.7.1.6 The inferences drawn from the aforesaid critical analysis of the performances of higher and lower achievers in Environmental studies for level II may be summarised as follows:-

1. The performances of the children of all communities belonging to both the age group of below 11 and above 11 years in Environmental studies for level II is significantly remarkable. The ratio between higher and lower achiever is 82:15.
2. The contribution of the male children belonging to SC/ST towards higher performances are more significant than that of girls of SC/ST. The ratio exists 18:3.
3. But the situation is quite reversed in the poor performances, where the girls of SC/ST have contributed more than the boys of SC/ST. The ratio between them (Girls and Boys of SC/ST) exists as 3:1.
4. The contribution of females of other communities towards poor performance is quite insignificant. Whereas their contribution towards higher performance is significantly satisfactory.

....267/-

PERFORMANCES OF NFE CHILDREN OF THE AGE GROUP OF BELOW 11 YEARS IN ENVIRONMENTAL STUDIES FOR LEVEL II

1.7.2.1 As regards the performance of the NFE children of all the communities belonging to the age group of below 11 years in environmental studies for level II, the study reveals that 84% children scored the high percentage of marks under the category of above average ranging between 10 to 30, whereas only 16% children scored the low percentage of marks under the category of below average ranging between 0 to 10. The ratio between the high and low achievers is 84:16; whereas it is 85:15 in case of children of both the age groups. This bears the testimony of the fact that the performances of NFE children belonging to the age group of below 11 years is poorer to those who belong to the both the age groups of below 11 and above 11 years.

1.7.2.2 The following Tables explain this:

TABLE NO. 39

Distribution of children of below 11 years age groups on the basis of their performances in

....268/-

Environmental studies for level II under various intervals and according to their classifications of SC/ST/male/Females/others.

Characteristics	NFE Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under various intervals								
25-30	-	-	-	-	-	-	-	-
20-25	8	6	-	-	7	5	4	3
15-20	16	12	1	1	22	17	13	10
10-15	6	5	1	1	22	17	9	7
5-10	1	1	4	3	10	8	3	2
0-5	1	1	-	-	2	1	-	-

TABLE NO. 40

1.7.2.3. Distribution of children belonging to the age group below 11 years on the basis of their performance in Environmental studies for level II

under the categories of below average ranging between 0 to 10 and above average ranging between 10-30 and according to their classifications of SC/ST/Male/Females/others.

Characteristics	NFE Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under the category of below average from 0 to 10	2	2	4	3	12	9	3	2
Above Average 10 to 30	30	23	2	2	51	39	26	20

1.7.2.4 On the basis of the aforesaid critical analysis the following inferences are drawn about the performance of NFE children belonging to the age group of below 11 years in Environmental studies for level II.

1. 84% children of all communities belonging to the age group of below 11 years have scored the higher percentage of marks ranging between 10 to 30, whereas only 16% children scored the poor percentage of marks under the category of below average ranging between 0 to 10. The ratio between the higher and low achievers is 84:16 whereas it has been 85:15 in case of the children belonging to both the age groups. This bears the testimony that the standard of the performances of the children belonging to the age group of below 11 years has considerably deteriorated.

2. The children of SC/ST have contributed more towards poor performences than those belonging to other communities by scoring the marks ranging between 0 to 10. The ratio between the poor achievers of other communities and SC/ST is 11:5.

Moreover the females of SC/ST are more responsible for poor performances than

the males. The ratio between the poor achievers (Males and Females) of SC/ST is 2:3 which bears the testimony of standard of performances of females of SC/ST inferior of the males.

3. Moreover, the females of SC/ST have very insignificantly contributed towards better performances than males of SC/ST. 23% males of SC/ST have scored the higher percentage of marks ranging between 10 to 30 as against 2% of females. The ratio between the higher achieving males and females of SC/ST is 23:2 which bears the testimony of the deteriorating standard of females of SC/ST.

4. The children of SC/ST and others are equally responsible for better performances.

1.7.3.1 PERFORMANCE OF NFE CHILDREN BELONGING TO THE AGE GROUP OF ABOVE 11 YEARS IN ENVIRONMENTAL STUDIES FOR LEVEL II

It has already been stated that the majority of NFE children attains the age group of above 11 years as they cover up the entire course

course prescribed for primary level and vigorous efforts are made to develop their desired competencies at par with the children of formal primary schools.

1.7.3.2 The performances of the children of all communities belonging to the age group of above 11 years bear the testimony of their developed competencies in Environmental studies for level II.

1.7.3.3 The present study reveals that 86% children of all the communities including SC/ST scored the higher percentage of marks under the category of above average ranging between 10 to 30; whereas only 14% of them scored the low percentage of marks under the category of below average ranging from 0 to 10. The ratio between the higher and low achievers is 86:14 or 6:1 approximately which is remarkably significant.

1.7.3.4 The following Tables explain this:

TABLE NO. 41

Distribution of children belonging to the age group of above 11 years on the basis of their

....273/-

performances in Environmental studies of level II under various intervals and according to their classifications of SC/ST/Male/Females/others.

Characteristics	Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under various intervals								
25-30	1	1	-	-	2	1	1	0
20-25	12	6	1	-	32	16	4	2
15-20	10	5	3	1	48	24	21	10
10-15	6	3	5	3	22	11	3	3
5-10	1	-	5	3	19	9	-	-
0-5	-	-	-	-	3	2	-	-

....274/-

TABLE NO. 42

1.7.3.5 Distribution of children belonging to the age group of above 11 years on the basis of their performances under both the categories of below average ranging between 0 to 10 and above average ranging between 10 to 30 and according to their classifications of SC/ST/Males/Females/Others.

Categories	Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under the category of below average Ranging between 0-10	1	1	5	2	22	11	-	-
Above Average 10-30	29	14	9	5	104	52	29	15

....275/-

1.7.3.6 It is quite evident from the aforesaid Table that no female child of others has contributed towards the poor performances of scores ranging between 0-10.

1.7.3.7 Similarly less than 1% male children of SC/ST have contributed towards the poor performances.

1.7.3.8 Again the study reveals that only 2% girls of SC/ST have scored poor percentage of marks ranging between 0 to 10.

1.7.3.9 On the basis of the aforesaid critical analysis the following inferences are drawn:

1. The children belonging to the age group of above 11 years are significantly better than those belong to the age group of below 11 years.
2. The contribution of the children of scheduled castes and scheduled tribes towards poor performances is quite insignificant.
3. The females of other communities have contributed considerably satisfactory towards the better performances in environmental

studies for level II.

4. 86% NFE children of all communities including SC/ST and belonging to the age group above 11 years have scored the higher percentage of marks under the category of above average ranging between 10 to 30 whereas only 14% of them scored the poor percentage of marks under the category of below average ranging from 0 to 10. The ratio between the higher and low achievers is 86:14 or 6:1 approximately which is remarkably significant.

5. The contribution of the children of SC/ST is quite significant towards better performances and they are equally responsible for the same as is quite evident from the ratio existing between the higher scorers of other communities and those of SC/ST which is 67:19.

1.8.1 PERFORMANCE OF CHILDREN OF BOTH THE AGE GROUP (BELOW 11 AND ABOVE 11 YEARS) IN ACADEMIC ACHIEVEMENT TEST FOR LEVEL II IN NATURAL SCIENCE

1.8.1.1 As regards the performance of NFE children of both the age group in natural science the study reveals that 25% of the total children (Male and female) belonging to Scheduled Castes and Scheduled Tribes and have appeared at the aforesaid test whereas 75% of the total children belonging to other communities appeared at it, the ratio between the percentage of children of other communities and that of SC and ST in 75:25 or 3:1. The aforesaid ratio indicates that there is considerably decrease in the strength of children belonging to SC and ST in comparison with that of children who appeared at the level I.

1.8.1.2 The study further reveals that 85% of the sample children of all communities scored the marks under the category of above average ranging from 10 to 30 whereas only 15% of the children scored the poor marks under the category of below

.....278/-

average ranging from 0 to 10. The ratio between the high and low scores as it exists is 85:15 or 6:1 approximately. This remarkably significant ratio bears the testimony of the motivation, inclination, aptitude, interest and high aspiration of NFE children towards natural science for level II.

1.8.1.3 The following Tables explain this:

TABLE NO. 43

Distribution of children belonging to both the age group of below 11 years and above 11 years on the basis of their performances in Natural science for level II under various Intervals and according to their classifications as SC/ST/Male/Female/Others.

Characteristics	Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under various intervals.								
25-30	2	1	-	-	9	3	1	-
20-25	17	5	2	1	57	18	13	4

15-20	30	9	4	1	66	20	22	7
10-15	8	2	3	1	29	9	12	4
5-10	3	1	7	2	19	6	2	1
0-5	1	1	4	1	11	3	-	-

TABLE NO. 44

Distribution of children belonging to both the age groups (below and above 11 years) on the basis of their performance in natural science for level II under both the categories of below average between 0-10 and above average ranging between 10 to 30 and according to their classification of SC/ST/Male/Female/Others.

Characteristics	Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under the category of below average ranging from 0- 10	4	1	11	4	30	9	2	1
Above Average 10 - 30	57	17	9	3	161	50	48	15

....280/-

1.8.1.5 From the aforesaid critical analysis the following inferences are drawn:-

1. The performances of all NFE children belonging to both the age group (below 11 years and above 11 years) in Natural Science for level II is significantly satisfactory. The ratio between the high and low achievers is 85:15.

2. The contribution of girls of SC and ST towards the poor performances in Natural Science is considerably more than that of male children of SC and ST. The ratio between them is 4:1 (four for girls and one for boys). The contribution of males of SC and ST (i.e. only 1%) is quite insignificant towards poor performances.

3. The female children of other communities have very insignificantly (only 1%) contributed towards poor performances in Natural Science whereas, the boys of other communities (i.e. 9%) are solely responsible for the poor performances in scoring the marks ranging between 0 to 10.

4. The females of SC/ST have very insignificantly contributed towards the higher performances by scoring the marks ranging between 10 to 30, whereas the male children of SC and ST are more responsible for better performances in Natural Science for level II.

1.8.2 PERFORMANCE OF CHILDREN BELONGING TO THE AGE GROUP OF BELOW 11 YEARS IN NATURAL SCIENCE FOR LEVEL II

1.8.2.1 As regards the performance of NFE children of level 11 belonging to the age group of below 11 years in natural science the study reveals that 88% children of all communities scored very high percentage of marks under the category of above average ranging from 10 to 30. Which is significantly encouraging. The study further reveals that only 12% children of all communities scored the poor percentage of marks under the category of below average ranging from 0 to 10.

The following Table explains this:

TABLE NO. 45

1.8.2.2 Distribution of children belonging to the

....282/-

age group below 11 years on the basis of their performances in Natural science for level II under various intervals ranging from 0-5 to 25-30 and according to their classifications SC/ST/Male/ Female/Others.

Characteristics	CHILDREN							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under various Intervals								
25-30	-	-	-	-	3	2	-	-
20-25	6	5	1	1	20	16	5	4
15-20	18	14	1	1	18	15	10	8
10-15	4	3	1	1	14	11	9	7
5-10	1	1	2	2	4	3	2	2
0-5	1	1	2	1	3	3	-	-

...283/-

TABLE NO. 46

1.8.2.3 Distribution of children belonging to the age group below 11 years on the basis of their performance in Natural Science of level II by scoring the marks under the category of below average ranging between 0 to 10 and above average ranging between 10 to 30 and their classifications as SC/ST/Male/Female/Others.

Characteristics	Children							
	SC/ST				Others			
	Male/		Female		Male/		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under the category of below average from 0 to 10	2	2	4	3	7	5	2	2
Above Average 10-30	28	22	3	3	55	44	24	19

....284/-

1.8.2.4 On the basis of the aforesaid critical analysis the following interferences are drawn:

1. The performance of NFE children of all communities belonging to the age group below 11 years in Natural Science for level II are significantly better than in any other subject. The ratio between high and low achievers is 88:12.

2. 19% girls of other communities contributed towards high and better performances; whereas only 2% of them scored the low percentage of marks under the category of below average ranging between 0 to 10.

3. 22% male children of SC and ST have contributed better towards higher performance in Natural Science whereas only 3% girls of SC/ST scored high percentage of marks.

1.8.3 PERFORMANCE OF NFE CHILDREN BELONGING TO THE AGE GR... ABOVE 11 YEARS IN NATURAL SCIENCE FOR LEVEL II:

1.8.3.1 As regards the performance of NFE children belonging to the age group of above 11 years in Natural Science for level II the study reveals that 16% children of all communities have scored the poor marks under the category of below average ranging between 0-10 whereas 84% children have scored under the category of above average ranging between 10-30. The ratio between the higher and lower acievers is 84:16 which is 5:1 approximately. Whereas the ratio between the aforesaid category i.e. of children is 88:12 among the children of below1, 11 years age group and 85:15 among the children belonging to both the age groups. The decreasing ratio of performance bears the testimony of the standard of children of this age group of above 11 years deteriorating. The following Table explains this :-

TABLE NO. 47

1.8.3.2 Distribution of children belonging to the age

......286/-

group of above 11 years on the basis of their performances in Natural Science in scoring the marks under different intervals and according to their classifications of SC/ST/Male/Female/others.

Characteristics	Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under various Intervals								
25-30	2	1	-	-	6	3	1	1
20-25	11	6	1	1	37	19	8	4
15-20	12	6	3	1	48	24	12	6
10-15	4	2	2	1	15	8	3	1
5-10	2	1	5	3	15	8	-	-
0-5	-	-	2	1	8	4	-	-

....287/-

1.8.3.3 It is quite evident from the aforesaid Table that only 3% males of SC/ST scored the marks ranging between 0 to 10. Moreover 15% males of SC/ST contributed significantly towards better performances. The following Table explains this:

TABLE NO. 48

1.8.3.4 Distribution of children belonging to the age group of above 11 years on the basis of their performances in Natural Science for level II under the both categories of below average ranging from 0 to 10. and above average ranging from 10 to 30 and according to their classifications as SC/ST/ Males/Females/Others

Characteristics	NFE Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under the category below average 0-10	2	1	7	3	23	12	-	-
Above average 10-30	29	15	6	3	106	54	24	12

..288/-

1.8.2.5 From the aforesaid critical analysis the following inferences are drawn:

1. The standard of the performances of the NFE children belonging to age group of above 11 years in Natural Science for level II has considerably deteriorated in comparison to the children of below 11 years age group. The ratio between high and low achievers is 84:16.

2. 12% females of other communities contributed significantly better than those of belonging to SC and ST. Only 3% of them scored high percentage of marks.

3. The performance of females of SC and ST is very poor and is quite insignificant. They are more responsible for poor performances than the males of SC/ST.

4. The performance of male children of SC and ST is significantly better than those belonging to other communities.

...289/-

Comparative statement of the performance of NFE children belonging to different age groups - Below 11 years, Above 11 years and both the age groups of below 11 and above 11 years in different subjects and under both the levels - Level I and Level II.

Characteristics	Performace in Language Hindi							
	Level I				Level II			
	Percentage of children scoring the marks				Percentage of children scoring the marks			
	Below Average 0 to 10		Above Average 10 to 30		Below Average 0 to 10		Above Average 10 to 30	
Different Age groups	All communities	SC/ST	All communities	SC/ST	All communities	SC/ST	All communities	SC/ST
Below 11 years	33%	9%	67%	20%	39%	9%	61%	27%
Above 11 years	44%	8%	56%	15%	20%	5%	80%	19%
Both the Age group below 11 & above 11 years	36%	8%	64%	19%	27%	6%	73%	22%

....290/-

From the perusal of the aforesaid statement it is quite evident that the NFE children belonging to the age group of below 11 years maintained the best performance in language Hindi for level I, whereas for level II the best performance has been maintained by the NFE children belonging to the age group of above 11 years. The contribution of 20% children of SC/ST belonging to the age group of below 11 years towards high percentage in Hindi for level I has been significantly remarkable; whereas only 19% children (in Minimum percentage) of SC/ST belonging to the Age group of above 11 years scored the high percentage of marks under the category of above average ranging between [illegible] 10 to 30 in language Hindi for level II.

Comparative statement of the performances of NFE children belonging to different age groups - Below 11 years, Above 11 years and both the age groups of below 11 and above 11 years in Mathematics for level I and level II.

Characteristics	Level I				Level II			
Different Age group	Percentage of children scoring the marks				Percentage of children scoring the marks			
	Below Average 0-10		Above average 10-30		Below Average 0-10		Above Average 10-30	
	All communities	SC/ST	All communities	SC/ST	All communities	SC/ST	All communities	SC/ST
Below 11 years	14%	4%	86%	24%	41%	7%	59%	20%
Above 11 years	27%	10%	73%	18%	32%	8%	68%	15%
Both the age groups below 11 and above 11 years	17%	5%	83%	22%	36%	8%	64%	17%

...292/-

From the perusal of the aforesaid statement it is quite evident that the NFE children belonging to the age group of below 11 years maintained the best performance in Mathematics for level I, whereas for level II the best performance has been maintained by the NFE children belonging to the age group of above 11 years.

The contribution of 24% children of SC/ST belonging to the age group of below 11 years towards high percentage in Mathematics for level I has been significantly remarkable; whereas it is quite insignificant in case of Mathematics for level II; whereas only 15% ST/ST scored the high percentage of marks under the category of above average ranging between 10 to 30.

Comparative statement of the performance of NFE children belonging to the different age groups - Below 11 years, Above 11 years and both the age groups of below 11 and above 11 years in Environmental studies for level I and level II.

Characteristics	Level				Level II			
	Percentage of children scoring the marks under the category				Percentage of children scoring the marks under the category			
	Below Average 0-10		Above Average 10-30		Below Average 0-10		Above Average 10-30	
	All communities	SC/ST	All communities	SC/ST	All communities	SC/ST	All communities	SC/ST
Below 11 year	18%	7%	82%	22%	16%	5%	84%	25%
Above 11 years	31%	4%	69%	13%	14%	3%	86%	19%
Both the groups of below 11 years & above 11 years	21%	6%	79%	20%	15%	5%	85%	20%

...294/-

It is quite evident from the aforesaid statement that the NFE childrer belonging to the agegroup of below 11 years maintained the best performance in Environmental studies for level I. 82% children scored the high percentage of marks under the category of above average ranging between 10 to 30; whereas only 69% children of above 11 years age group and 79% of both the age groups (below 11 and above 11 years) scored the aforesaid high percentage of marks in environmental studies for level I.

Further, for level II the best performance has been maintained by the NFE children belonging to the age group of above 11 years in Environmental studies; whereas 86% NFE children scored the high percentage of marks under the ,category of above average ranging from 10 to 30.

Moreover 22% children (the highest percentage) of SC/ST belonging to the age group of below 11 years contributed towards the best

performances in Environmental studies for level I, whereas only 19% (minimum percentate of) children of SC/ST belonging to the age group of above 11 years contributed towards best performances in Environmental Studies for level II.

Comparative statement of the performance of NFE children belonging to the different age groups - below 11 years, above 11 years and both the age groups of below and above 11 years in Natural Science for level II.

Characteristics	Percentage of children scoring the marks under the category of			
	Below Average ranging between 0-10		Above average ranging between 10-30	
Differe- nt Age Group	All communities	SC/ST	All Communities	SC/ST
Below 11 years	12%	5%	88%	25%
Above 11 years	16%	4%	84%	18%
Both the age group below 11 & above 11 years	15%	5%	85%	20%

...296/-

From the perusal of the aforesaid comparative statement it is quite evident that the NFE children belonging to the age group of below 11 years maintained the best performances in Natural Science for level II. 88% (the highest percentage) NFE children of below 11 years Age group scored the high percentage of marks under the category of above average ranging between 10 to 30, whereas 84% children of above 11 years age group and 85% children belonging to both the age groups of below 11 and above 11 years scored the aforesaid high percentage of marks in Natural Science for level II.

Further 25% (the highest percentage) children of SC/ST belonging to the age group of below 11 years contributed towards the best performances in Natural Science, whereas only 18% SC/ST of above 11 years and 20% children of SC/ST belonging to both the age groups

contributed towards the high performances in Natural Science.

CONCLUSION:

On the basis of the aforesaid critical analysis and the comparative statements of the performances of NFE children studying at the centres run by Government belonging to the different age groups of below 11 years, above 11 years and both the age groups of below 11 and above 11 years in different subjects- Language Hindi, Mathematics, Environmental Studies and Natural Science for level I and level II the following inferences are drawn:

1. The NFE children of all the communities belonging to the age group of below 11 years maintained the best performances in all the subjects of Language Hindi, Mathematics and Environmental Studies for level I.

   Their standard of scholastic achievements is far far superior to that of the children

belonging to the age group of abov as well as both the age groups of and above 11 years.

2. The contribution of the NFE childr is significantly remarkable toward performance in the aforesaid subje

3. Maximum number of children of SC/S' Female) belonging to the age group 11 years scored the highest percen marks under the category of above a ranging between 10 to 30.

4. (i) The present empirical study further that the NFE children of all commun belonging to the age group of above maintained the best performance in Hindi, Mathematics and Environmenta for level II.

ii) The standard of their scholastic ac is far far superior to that of the

...2

belonging to the age group of below 11 years and that of both the age groups of below 11 and above 11 years.

iii) In Natural Science the children belonging to the age group of below 11 years maintained the best performance which is an exception.

5. The contribution of the children of SC/ST towards the best performance in language, Maths and Environmental Studies for level II is poorer to the children of SC/ST belonging to other age groups i.e. (of below 11 and of both the age groups of below 11 and above 11 years.

6. The maximum number of children of SC/ST belonging to the age group of below 11 years contributed to the best performance in Natural Science for level II.

....300/-

7. It further very explicitly signifies that the contribution of the NFE children belonging to the weaker sections of the society is significantly remarkable and bears the testimony of their high aspirations for leading a better life on getting educational facilities being provided to them at the NFE Centres.

...

CHAPTER - V

PART-II

NFE CHILDREN AND THEIR ACADEMIC ACHIEVEMENTS

1.2 PERFORMANCE OF NFE CHILDREN OF VOLUNTARY AGENCIES:

1.2.1 From the perusal of the preceding chapters it is quite evident that the contribution of voluntary agencies towards the successful implementation of NFE programme in Rajasthan has been very encouraging. The involvement of the community through the voluntary agencies has created a very conducive atmosphere to bring the non-enrolled children specially belonging to the weaker sections of the society into the fold of education through NFE programme.

1.2.1.1 The Academic achievement tests in language, Maths, Environmental studies and natural science were administered to the NFE children of twenty NFE centres run by two selected voluntary agencies of the sample namely, District Adult Education Association, Ajmer and Lok Shikshan Sansthan, Jaipur.

1.2.1.2 The present study reveals that 62% children of the fixed criteria of all communities including 30% children of SC and ST appeared at the Academic achievement tests for level I out of them 12% are females and 18% are males.

1.2.1.3 Similarly, 72.5% children of all the communities of the fixed criteria including 33% children of SC and ST appeared at the Academic Achievement tests meant for level II.

1.2.2 PERFORMANCE OF NFE CHILDREN OF BOTH THE AGE GROUPS IN LANGUAGE HINDI FOR LEVEL I:

1.2.2.1 As regards the performance of children belonging to both the age groups of all communities in language Hindi for level I , the study reveals that only 25% children of all the communities scored the marks under the category of above average ranging between 10 to 30 whereas 75% children scored low percentage of marks under the category of below average ranging from 0 to 10.

....303/-

The ratio between the high and low achievers is 25:75 or 1:3 which is quite reversed to the ratio of the performance of the children studying at the NFE centres run by Government Agencies. The performance of the females of SC and ST in the Mother tongue Hindi is quite alarming. Only 2% females of SC and ST contributed towards the high percentage of marks ranging between 10 to 15 whereas 10% females of SC and ST contributed towards the poor performance by scoring the marks under the category of below average ranging between 0-10. No female child of SC/ST scored the marks ranging between 15-20 and onwards, which is quite evident from the Table given below:

TABLE NO. 49

1.2.2.2 Distribution of NFE children of voluntary agencies belonging to both the age groups of below 11 years and above 11 years on the basis of their performances in language Hindi for level I and according to their classifications of SC/ST/

Male/Female/Others.

Characteristics	NFE Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of score under various class Intervals								
25-30	-	-	-	-	-	-	-	-
20-25	2	1	-	-	1	1	-	-
15-20	2	1	-	-	3	1	1	1
10-15	8	4	3	2	20	11	6	3
5-10	16	9	8	4	33	18	13	7
0-5	17	9	11	6	17	9	24	13

1.2.2.3 It is quite evident from the aforesaid Table that the performance of NFE children attending NFE centres run by voluntary agencies is extremely poor. The maximum number of NFE children have scored the lowest marks ranging from 0 to 10.

The contribution of females of SC/ST towards the poor performance is more than that females of other communities.

1.2.2.4 Moreover, the contribution of girls of SC and ST is quite insignificant towards better performances, only 2% percentage of females of SC and ST have contributed towards better peformance.Which is quite insignificant.

1.2.2.5 Similarly only 4% females of other communities have scored the marks under above average ranging from 10 to 15 which is quite evident from the Table given below:

TABLE NO. 50

1.2.2.6 Distribution of children of NFE centres run by voluntary agencies and belonging to both the age groups (Below 11 and above 11 years) on the basis of their performance under both the categories of below average ranging from 0 to 10 and above average ranging from 10 to 30 and according to

their classifications of SC/ST/Males/Females/Others.

Characteristics	NFE Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under the category below average								
0-10	33	18	19	10	50	27	37	20
Above average								
10-30	12	6	3	2	24	13	7	4

1.2.2.7 On the basis of the aforesaid critical analysis the following inferences are drawn:

1. The performances of the NFE children of both the age groups studying at the NFE centres run by voluntary agencies are very poor in language Hindi for level I.

   The ratio between the high and low

achievers is 25:75, whereas it is quite reversed in case of NFE children attending the NFE centres run bythe Government agencies.

2. No NFE female of any category scored the marks under the category of above average ranging from 15-20 and onwards.

3. The maximum number of NFE children of voluntary agencies scored the lowest marks ranging between 0 and 10, whereas the minimum number of children studying at the NFE centres run by the Government agencies scored the lowest marks ranging between 0-10.

4. 36% children of SC and ST appeared at the aforesaid test in language Hindi for level I, which is quite encouraging and bears the testimony of the fact that the voluntary agencies make incessant and vigorous efforts for bringing all the out-of-school children belonging to the weaker sections of the society i.e. SC and ST and other downtrodden class of people into the fold of education through NFE programme.

....308/-

1.2.3 PERFORMANCE OF NFE CHILDREN OF VOLUNTARY AGENCIES BELONGING TO THE AGE GROUP BELOW 11 YEARS IN LANGUAGE HINDI FOR LEVEL I.

1.2.3.1 As regards the performance of children of all communities attending the NFE centres run by voluntary agencies and belonging to the age group of below 11 years the situation of all the more miserable. The ratio between the high and low achievers is 20:80 at this stage, which is quite alarming and bears the testimony of the lack of incentives, motivation and encouragement to the NFE children of voluntary agencies.

The following Table explains this:

TABLE NO. 51

1.2.3.2 Distribution of NFE children of voluntary agencies belonging to the age group below 11 on the basis of their performance in language Hindi for level I under various Intervals and according

to their classifications of SC and ST/Male/Female/ and others.

Characteristics	NFE children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under various Intervals								
25-30	-	-	-	-	-	-	-	-
20-25	1	1	-	-	1	-	-	-
15-20	2	1	-	-	1	1	1	1
10-15	4	3	2	1	11	18	6	4
5-10	16	11	8	6	19	14	10	7
0-5	16	12	9	7	14	10	18	13

1.2.3.3 It is quite evident from the aforesaid Table that maximum number i.e. 80% children of all communities scored the lowest marks ranging between 0 to 10. Only 20% scored between 10 to 30, the

...310/-

the ratio between high and low achievers is 20:80 or 1:4, which is very much alarming.

1.2.3.4 The study further reveals that 42% children (male & females) of SC and ST belonging to the age group below 11 years appeared at the academic achievement test in language Hindi as against the 58% children of other communities. The ratio between the children of SC/ST and others is 42 :58 or 2:3 approximately, which is quite encouraging and bears the testimony of the encouragement, motivation, incentive and aspiration of the SC/ST children for education.

1.2.4.1 <u>PERFORMANCE OF NFE CHILDREN ATTENDING THE NFE CENTRES RUN BY VOLUNTARY AGENCIES BELONGING TO THE AGE GROUP ABOVE 11 YEARS IN LANGUAGE HINDI FOR LEVEL I</u>

1.2.4.2 As regards the performances of the NFE children of voluntary agencies belonging to the age group of above 11 years in language Hindi for level I, the study reveals that only 37% children scored the marks under the category of above average

ranging from 10 to 25. Whereas maximum percentage of 63% children have contributed towards poor performance by scoring the low marks ranging from 0 to 10. This indicates that the standard of children has very considerably deteriorated at this stage, which is quite evident from the Tables given below:-

TABLE NO. 52

1.2.4.3 Distribution of NFE children of voluntary agencies belonging to the age group above 11 years on the basis of their performances in language Hindi level I according to their classifications of SC/ST/Male/Females/Others.

Characteristics	NFE Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under different Intervals								
25-30	-	-	-	-	-	-	-	-

...312/-

20-25	1	2	-	-	-	-	-	-
15-20	-	-	-	-	2	4	-	-
10-15	4	9	1	2	9	20	-	-
5-10	-	-	-	-	14	30	3	7
0-5	1	2	2	4	3	7	6	13

TABLE NO. 53

1.2.4.4 Distribution of NFE children of voluntary agency belonging to the age group of above 11 years on the basis of their performance in language Hindi for level I under both the categories of below average and above average according to all males and females of SC/ST and others of voluntary agencies.

Characteristics	NFE Children			
	SC/ST		Others	
	All Male & Females		All Males & Females	
	No.	%	No.	%
Frequency of scores under the category of below average				
0-10	3	6	26	57
Above average				
10-30	6	13	11	24

....313/-

run by Government agencies have scored the marks under the category of above average ranging between 10 to 30.

4. The performance of females of all communities including SC/ST is quite insignificant. They contributed more for poor performances than for better one. Whereas the females of other communities, studying at the NFE centres run by the Government agencies have better performances which indicate their motivation, encouragement, aptitude, inclination and high aspirations for education than those studying at the NFE centres run by voluntary agencies.

1.2.5.1 PERFORMANCE OF NFE CHILDREN OF VOLUNTARY AGENCIES BELONGING TO BOTH THE AGE GROUPS OF BELOW 11 AND ABOVE 11 YEARS IN MATHEMATICS FOR LEVEL I:

1.2.5.2 As regards the performance of the NFE children of voluntary agencies belonging to both the age groups , the study reveals that 71% NFE children of all communities scored the high percentage of marks under the category of above average ranging

....315/-

1.2.4.5 On the basis of the aforesaid critical analysis the following inferences are drawn as regards the performance of children in language Hindi for level I.

1. The standard of the NFE children studying at the NFE centres run by voluntary agencies has been found considerably deteriorated in language Hindi in comparison to those studying at the NFE centres run by Government Agencies.

2. The ratio between the high and low scorers is 37:63 or 1:2 approximately whereas the between the aforesaid clientele studying at the NFE centres run by Government agencies is 56:44 which is almost reversed.

3. The maximum percentage 63% of NFE children studying at the NFE centres run by voluntary agencies have scored lowest marks ranging between 0 to 10 whereas the maximum number of children studying at the NFE centres

.....314/-

between 10 to 30; whereas only 29% of them scored the low percentage of marks under the category of below average ranging between 0 to 10, in Mathematics for level I. The ratio between the high and low achievers is 71:29, which is remarkably significant.

1.2.5.3 Moreover 27% children (Male and female) of SC/ST have contributed significantly towards the remarkable performance in Mathematics for level I. The following Table explains this:

TABLE NO. 54

1.2.5.4 Distribution of children belonging to both the age groups of below 11 years and above 11 years on the basis of their performance in Mathematics for level I and according to their classifications of SC/ST/Male/Female/Others.

Characteristics	NFE children of voluntary agencies.							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under different Intervals								
25-30	4	2	-	-	2	1	-	-

....316/-

20-25	8	4	4	2	23	13	8	4
15-20	17	9	7	4	18	10	8	4
10-15	5	3	4	2	11	6	10	6
5-10	2	1	2	1	9	5	9	5
0-5	10	6	5	3	6	3	9	5

TABLE NO. 55

1.2.5.5 Distribution of children of both the age groups on the basis of their performance in Mathematics for level I under both the categories of below and above average classification of SC/ST/Male/Female/Others.

Characteristics	NFE children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under the category of below average								
0-10	12	7	7	4	15	8	18	10
Above average								
10-30	34	19	15	8	54	30	26	14

1.2.5.6 On the basis of the aforesaid critical analysis the following inferences are drawn:-

1. The performance of the children belonging to both the age groups in Maths for level I is remarkably significant and far for better than that in language Hindi. The ratio between the high and low achievers is 71:29 or 7:3 approximately which is significantly satisfactory.

2. The contribution of females of all communities including SC and ST are equally responsible for poor performances as their counterparts males are.

3. The male children of SC and ST have contributed considerably better towards remarkable performances than the females of SC and ST.

1.2.6.1 PERFORMANCE OF NFE CHILDREN OF VOLUNTARY AGENCIES BELONGING TO THE AGE GROUP OF BELOW 11 YEARS IN MATHEMATICS FOR LEVEL I:

1.2.6.2 As regards the performance of NFE children belonging to the age group of below 11 years in

....318/-

Mathematics for level I, the study reveals that 69% children of all communities have scored the very high percentage of marks ranging from 10 to 30, whereas only 31% scored the poor percentage of marks ranging between 0 to 10. The following table explains this:

TABLE NO. 56

1.2.6.3 Distribution of children belonging to the Age groups of below 11 years on the basis of their performances in Maths for level I and according to their classifications of SC/ST/Male/Females/Others

Characteristics	NFE children of voluntary agencies							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of score under various Intervals								
25-30	3	2	-	-	1	1	-	-
20-25	6	5	4	3	13	9	7	5

....319/-

15-20	14	10	7	5	9	7	6	4
10-15	5	4	2	1	8	6	9	7
5-10	2	1	1	1	5	4	6	5
0-5	10	7	5	4	6	4	7	5

1.2.6.4 The study further reveals that the females of other communities are more responsible for poor performance than the males, the ratio between Males and Females of other communities scoring poor percentage of marks is 8:10. Moreover, the ratio between the high and low achievers is 23:16.

1.2.6.5 Similarly, the ratio between the high and low achievers of SC/ST is 31:13. The following Table explains this:

TABLE NO. 57

1.2.6.6 Distribution of children belonging to the age group below 11 years on the basis of their performance under both the categories i.e. below average ranging between 0-10 and above average

ranging from 10 to 30 in Maths for level I and according to their classifications of SC/ST/ Male/Females/Others.

Characteristics	NFE Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No	%	No	%
Frequency of score under the category of below average								
0-10	12	9	6	4	11	8	13	10
10-30	28	21	13	9	31	23	22	16

1.2.6.7 From the aforesaid critical analysis the following inferences are drawn:

1. The performances of children of all communities in Maths for level I are significantly remarkable. 69% children of all communities scored the high percentage of marks and only

31% scored the low percentage of marks. The ratio between the high and low achievers is 69:31 which is remarkably significant.

2. The male and female children of SC and ST are equally responsible for low and high performances in Mathematics for level I.

1.2.7 PERFORMANCES OF NFE CHILDREN BELONGING TO THE AGE GROUP OF ABOVE 11 YEARS IN MATHEMATICS FOR LEVEL I

1.2.7.1 The study reveals that as the children grow up and attain the age above 11 years their understanding and comprehension also develops, which helps them in developing desired competencies. The study further reveals that 78% children of all communities belonging to the age group of above 11 years have scored very high percentage of marks under the category of above average ranging from 10 to 30 whereas only 22% children have scored poor percentage of marks ranging from 0 to 10. The ratio between the high and low achievers is 78:22 which is 4:1, which is significantly remarkable.

....322/-

1.2.7.2 The study further reveals that no male of SC/ST scored the poor percentage of marks under the category of below average ranging from 0 to 10.

1.2.7.3 Similarly no male child of other communities scored the low percentage of marks ranging from 0 to 50 Only 2% female children of SC/ST have contributed towards poor performances by scoring the marks ranging from 0 to 10. Moreover, 11% females of other communities have scored poor percentage of marks ranging between 0-10. whereas only 9% male children scored poor percentage of marks ranging between 0-10. The following Table explains this:

TABLE NO. 58

1.2.7.4 Distribution of children of voluntary agencies belonging to the age group of above 11 years on the basis of their performances in

Mathematics for level I and according to their classifications of SC/ST/Male/Females/Others.

Characteristics	NFE Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under various Intervals								
25-30	1	2	-	-	1	2	-	-
20-25	2	4	-	-	10	22	1	2
15-20	3	7	-	-	9	20	2	4
10-15	-	-	2	5	3	7	1	2
5-10	-	-	1	2	4	9	3	7
0-5	-	-	-	-	-	-	2	5

....324/-

TABLE NO. 59

1.2.7.5 Distribution of children belonging to the age group of above 11 years on the basis of their performances in Mathematics for level I under both the categories i.e. below average ranging between 0-10 and above average ranging between 10 to 30 and according to their classifications of SC/ST/Male/Female/Others.

Characteristics	NFE Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under the category below average								
0-10	-	-	1	2	4	9	5	11
Above average								
10-30	6	13	2	5	23	51	4	9

....325/-

1.2.7.6 On the basis of the aforesaid critical analysis the following inferences are drawn:-

1. The performances of the children of all communities belonging to the age group of above 11 years in Mathematics for level I are significantly remarkable and far far better than those who belong to the age group of below 11 and those who belong to both the age groups.

2. The performances of the males of SC/ST in Maths for level I are significantly remarkable and their contribution towards very high performance is far better than females of SC/ST which bears the testimony of their aptitude, inclination and interest towards mathematics and high aspiration for education to lead better life.

3. The contribution of the males of other communities towards poor performances is insignificant but their contribution towa-rds higher performances is remarably significant.

....326/-

4. No male child of SC/ST scored the lowest percentage of marks ranging between 0 to 10 whereas 13% males of SC/ST contributed significantly towards higher performances by scoring the higher percentage of marks ranging between 15-20 to 25-30.

5. Their remarkable performances in Maths indicates that they have developed desired competencies in Mathematics.

1.2.8 THE PERFORMANCE OF CHILDREN (STUDYING AT THE NFE CENTRE RUN BY VOLUNTARY AGENCIES) BELONGING TO BOTH THE AGE GROUP OF BELOW 11 AND ABOVE 11 YEARS IN ENVIRONMENTAL STUDIES FOR LEVEL I :

1.2.8.1 As regards the performances of children in Environmental studies for level I the study reveals that only 52% children male and female of all communities belonging to both the age groups of below 11 and above 11 years scored the high percentage of marks under the category of above average ranging between 10 to 30 in Environmental studies for level I and 48% children scored the

poor percentage of marks under the category of below average ranging between 0 to 10. The following Table explains this:

TABLE NO. 60

1.2.8.2 Distribution of NFE children of the voluntary agencies belonging to both the age groups below 11 and above 11 on the basis of their performances in Environmental studies for level I and according to their classification as SC/ST/Male/Female/Others.

Characteristics	Children(Voluntary Agencies)							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of score under various Intervals								
25-30	1	1	-	-	-	-	-	-
20-25	6	3	-	-	6	3	4	2
15-20	11	6	3	1	12	7	9	5

....328/-

10-15	4	2	1	1	25	14	12	7
5-10	9	5	3	2	13	7	6	3
0-5	14	8	15	8	15	8	13	7

TABLE NO. 61

1.2.8.3 Distribution of NFE children belonging to both the age groups of below 11 and above 11 on the basis of their performances under both the categories of below average and above average and according to their classifications of SC/ST/Males/Females/Others.

Characteristics	Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of score under the category below average ranging from 0 : 10								
0 to 10	23	13	18	10	28	15	19	10
Average above								
10- 30	22	12	4	2	43	24	25	14

1.2.8.4 On the basis of the aforesaid critical analysis the following inferences are drawn:-

1. The children of all the communities belonging to both the age groups of below 11 and above 11 years have achieved very poor performances in environmental studies for level I only 52% children of all communities scored better percentage of marks which is q-uite insignificant.

2. The females of both the classes i.e. SC/ST and others have equally contributed towards poor performances.

3. The females of other communities are equally responsible for poor and better performances in environmental studies for level I.

4. The contribution of males and females of SC and ST towards better pefffcrmances is quite insignificant.

1.2.9 PERFORMANCES OF CHILDREN STUDYING AT NFE CENTRES RUN BY VOLUNTARY AGENCIES AND BELONGING TO THE AGE GROUP BELOW 11 YEARS IN ENVIRONMENTAL STUDIES FOR LEVEL I:

1.2.9.1 As regards the performances of children belonging to the age group below 11 years the study reveals that only 47% children of all communities have scored better percentage of marks under the category of above average ranging between 10 to 30, whereas 53% scored low percentage of marks under the category of below average ranging between 0 to 10. The ratio between the percentage of high and low achievers is 47:53; whereas the ratio between the higher and lower achievers belonging to both the age groups of below 11 and above 11 years is 52:48. The aforesaid reversed digits of higher and lower achievers belonging to the age group below 11 years indicates that the standard of the academic achievement of the children has considerably deteriorated; which is quite evident from the table given:

....331/-

TABLE NO. 62

1.2.9.2 Distribution of children belonging to the age group of below 11 years on the basis of their performances in environmental of level I and according to their classifications of SC/ST/ Males/Females/Others.

Characteristics	Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under various class Intervals								
25-30	1	1	-	-	-	-	-	-
20-25	3	2	-	-	5	4	4	3
15-20	9	7	3	2	8	6	8	6
10-15	4	3	1	1	10	7	8	6
5-10	8	6	3	2	7	5	5	4
0-5	14	10	12	9	14	10	10	7

....332/-

TABLE NO. 63

1.2.9.3 Distribution of children belonging to the age group of below 11 years on the basis of their performances in Environmental studies for level I under both the categories of below average and above ranging between 0-10 and 10 to 30 respectively and according to their classifications of SC/ST/Males/Females/Others.

Characteristics	Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No	%	No.	%	No.	%	No.	%
Frequency of scores under the category of below average ranging from								
0 to 10	22	16	15	11	20	15	15	11
Above average								
10 to 30	17	12	4	3	23	17	20	15

1.2.9.4 On the basis of the critical analysis the following inferences are drawn:

1. The standard of academic achievement in environmental studies for level I of the children of all the communities have considerably deteriorated only 47% children scored the high percentage of marks ranging between 10 to 30, whereas 53% scored low percentage of marks; which is very much discouraging.

2. The males and females of SC/ST and others equally responsible for poor performances.

3. The girls of other communities have contributed more than SC/ST towards better performances by scoring the marks ranging between 10-30.

1.2.10 <u>PERFORMANCES OF CHILDREN STUDYING AT THE NFE CENTRES RUN BY VOLUNTARY AGENCIES AND BELONGING TO THE AGE GROUP OF ABOVE 11 YEARS IN</u>

....334/-

ENVIRONMENTAL STUDIES FOR LEVEL I

1.2.10.1 As regards the performances of children belonging to the age group of above 11 years in environmental studies for level I, the study reveals that the standard of children of above 11 years of all communities is significantly superior to those belonging to below 11 years. 65% children of all communities have scored the higher percentage of marks ranging between 10 to 30 and only 35% children scored the low percentage of marks ranging between 0 to 10. The ratio between high and low achievers is 65:35 or 2:1 approximately. The following Table explains this:

TABLE NO. 69

1.2.10.2 Distribution of children belonging to the age group of above 11 years on the basis of their performance in environmental studies for level I and according to the classifications

of SC/ST/Male/Female/Others.

Characteristics	Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under different Intervals								
25-30	-	-	-	-	-	-	-	-
20-25	3	7	-	-	1	2	-	-
15-20	2	4	-	-	4	9	1	2
10-15	-	-	-	-	15	33	4	9
5-10	1	2	-	-	7	15	1	2
0-5	-	-	3	7	1	2	3	7

1.2.10.3 On the basis of the aforesaid critical analysis the following inferences are drawn:

1. The standard of the academic achievements of children belonging to the age group of above 11 years in environmental studies for level I is superior to all other children belonging to either both the age groups or below 11 y 11 years.

2. The standard of female children of SC/ST in environmental studies for level I is very inferior to their counterparts males of SC/ST.

3. The standard of the children belonging to other communities is superior to those of SC/ST.

4. 65% children of all communities scored the high percentage of marks in environmental studies for level I whereas 35% scored low percentage of marks. The ratio between high and low achievers is 65:35 which is quite

satisfactory in comparison to the children belonging to both the age groups; where the ratio between high and low achievers is 52:48 and 47:53 between the children belonging to the age group of below 11 years.

1.2.11 PERFORMANCE OF CHILDREN STUDYING AT THE NFE CENTRES RUN BY VOLUNTARY AGENCIES IN LANGUAGE - HINDI FOR LEVEL II

1.2.11.1 As regards the performance of children of both the age groups of below 11 years and above 11 years in language Hindi for level II, the study reveals that only 28% children male and female of all communities scored the marks under the category of above average ranging between 10 to 25 whereas the majority of children i.e. 72% scored the very poor percentage of marks under the category of below average ranging between 0 to 10 . The ratio between the high and low achievers is 28:72 or 7:18. The reversed position of digits from the ratio that exists between the high and low achievers

....338/-

of NFE centres run by the Government agencies bears the testimony of the children of all communities having very apathetic attitude towards mother tongue - Hindi. The following Table explains this:

TABLE NO. 65

1.2.11.2 Distribution of children belonging to both the age groups of below 11 years and above 11 years on the basis of their performances in language Hindi of level II and according to the classifications as SC/ST/Males/Females/Others.

Characteristics	Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under different Intervals								
25-30	-	-	-	-	-	-	-	-
20-25	-	-	1	1	3	2	-	-

15-20	3	2	3	2	5	3	1	1
10-15	9	6	4	3	10	7	2	1
5-10	12	8	2	1	34	24	2	2
0-5	9	6	4	3	33	23	7	5

TABLE NO. 66

1.2.11.3 Distribution of children of both the age groups (Below 11 years and above 11 years) on the basis of their performances in language - Hindi for level II by scoring the marks under both the categories of below average and above average and according to their classifications of SC/ST/Males/Females/Others.

Characteristics	Children(Voluntary agencies)							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under the category								

of below average ranging from 0 to 10	21	15	6	4	67	47	9	6
Above average 10 to 30	12	8	8	6	18	12	3	2

1.2.11.4 On the basis of the aforesaid critical analysis the following inferences are drawn:-

1. The performances of children studying at the NFE centres run by the voluntary agencies and belonging to both the age groups of below 11 and above 11 years in language Hindi for level II are very very poor and bears the testimony of the apathetic attitude of the children towards mother tongue Hindi.

2. The standard of females of other communities is inferior to that of females of SC/ST in language Hindi.

3. The female children of other communities have contributed more towards poor performances than the females of SC/ST.

...341/-

4. The males ofboth the categories SC/ST and others have equally contributed towards better performances.

5. The deteriorating standard of children in language Hindi indicates that due to apathetic attitude towards Hindi and lack of incentive, motivation among the NFE children the desired competencies in language Hindi could not be developed.

1.2.12 THE PERFORMANCE OF NFE CHILDREN OF VOLUNTARY AGENCIES BELONGING TO THE AGE GROUP OF BELOW 11 YEARS IN LANGUAGE HINDI FOR LEVEL II:

1.2.12.1 As regards the performances of children belonging to the age group of below 11 years and studying at NFE centres run by voluntary agencies the study reveals that only 19% children of all communities scored the good percentage of marks under the category of above average ranging between 10 to 30. Moreover, 81% children of all communities scored the low percentage of marks ranging between 0 to 10. The ratio between the high and

.....342/-

low achievers is 19:81 or 1:4 approximately. The reversed digits of the aforesaid ratio of the percentage of high and low achievers of marks in language Hindi studying at the NFE centres run by Government agencies bears the testimony of better standard of NFE centres run by Government. The following Table explains this:

TABLE NO. 67

1.2.12.2 Distribution of children belonging to the age group of below 11 years on the basis of their performances in language Hindi for level II and according to their classifications of SC/ST/Male/Females/Others.

Characteristics	Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequencies of scores under different Intervals								
25-30	-	-	-	-	-	-	-	-

20-25	-	-	-	-	1	3	1	3
15-20	-	-	-	-	1	3	1	3
10-15	2	6	1	3	1	3	-	-
5-10	6	19	-	-	4	13	2	7
0-5	2	7	3	10	8	16	-	-

TABLE NO. 68

1.2.12.3 Distribution of children belonging to the age group of below 11 years on the basis of their performances in language Hindi for level II under both the categories of below average ranging between 0-10 and above average between 10 to 30 and according to their classifications of SC/ST/Males/Females/Others.

Characteristics	Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores								

under the category of below average ranging between								
0 to 10	8	26	3	10	12	39	2	6
Above average								
10 - 30	2	6	1	3	2	6	1	4

1.2.12.4 On the basis of the aforesaid critical analysis the following inferences are drawn:

1. The performance of the children of all communities belonging to the age group of below 11 years in language (Mother Tongue) Hindi for level II is horribly poor and bears the testimony of the apathetic attitude of the children towards their mother tongue Hindi.

2. The males and females of SC/ST and others are equally responsible for better performances in language.

3. But the standard of females of SC and ST in language Hindi is inferior to that of females

of other communities.

4. The males of all communities particularly those belonging to SC/ST are more responsible for poor performances in language Hindi.

On the whole the study depicts the miserable conditions of children of all communities belonging to the age group of below 11 years in language Hindi for level II.

1.2.13 THE PERFORMANCES OF CHILDREN BELONGING TO THE AGE GROUP OF ABOVE 11 YEARS AND WHO ARE STUDYING AT THE NFE CENTRES RUN BY VOLUNTARY AGENCIES IN LANGUAGE HINDI FOR LEVEL II:

1.2.13.1 As regards the performances of children belonging to the age group of above 11 years in language Hindi for level II, the study reveals that only 33% children of all communities have scored the good percentage of marks under the category of above average ranging between 10 to 30 whereas 67% scored the low percentage of marks under the category of below average. The ratio

....346/-

between the high and low achievers is 33:67 which is quite reversed from the ratio that exists in case of children studying at NFE centres run by the Government Agencies. Which is quite evident from the Table given below:

TABLE NO. 69

1.2.13.2 Distribution of NFE children of voluntary agencies belonging to the age group of above 11 years on the basis of their performances in language Hindi for level II and according to their classification of SC/ST/Male/Females/and others.

Characteristics	Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under different Intervals								
25-30	-	-	-	-	-	-	-	-

20-25	-	-	1	1	3	3	1	1
15-20	3	3	3	3	4	3	1	1
10-15	7	6	3	2	9	8	2	2
5-10	6	5	2	2	30	27	5	4
0-5	7	6	1	1	25	22	-	-

1.2.13.3 The study further reveals that males and females of SC/ST and others are equally responsible for better performances in language Hindi level II; whereas only 14% children males and females of SC/ST have scored the poor percentage of marks ranging between 0 to 10 and 53% children males/ females of other communities have contributed more towards the poor percentage by scoring the marks ranging from 0 to 10 which indicates that the standard of children of SC/ST is superior to those who belong to other communities which is quite evident from the Table given below:

TABLE NO. 70

1.2.13.4 Distribution of children belonging to the age

group of above 11 years on the basis of their performances in language Hindi for level II under both the categories i.e. below average ranging from 0 to 10 and above average ranging between 10 to 30 and according to their classifications of SC/ST/Males/Females/Others.

Characteristics	Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under the category of below average ranging from								
0-10	13	11	3	3	55	49	5	4
Above average								
10-30	10	9	7	6	16	14	4	4

....349/-

1.2.13.5 On the basis of the aforesaid critical analysis the following inferences are drawn:-

1.2.13.5.1 The standard of the children of all communities belonging to the age group of above 11 years is superior to those belonging to both the age groups of below 11 years and above 11 years as well as to those who belong to the age group of below 11 years. But it is very inferior to those who are studying at the NFE centres run by the Government Agencies. The ratio between the high and low achievers is 33:67; which is miserably poor.

2. The children males and females of SC and ST and others are equally responsible for better performances in language Hindi for level II.

3. The standard of males of all communities is inferior to the females in language Hindi for level II because 60% males children of all communities scored the low percentage of marks ranging between 0 to 10 whereas only

....350/-

7% females of all communities scored the low percentage of marks.

4. The standard of males and females of SC/ST is superior to the children of other communities in language Hindi for level II.

1.2.14 PERFORMANCES OF THE NFE CHILDREN STUDYING AT THE NFE CENTRES RUN BY THE VOLUNTARY AGENCIES AND BELONGING TO BOTH THE AGE GROUPS OF BELOW 11 YEARS AND ABOVE 11 YEARS IN MATHEMATICS FOR LEVEL II:

1.2.14.1 As regards the performances of children belonging to both the age groups of below 11 years and above 11 years in Mathematics for level II, the study reveals that 37% children of all communities scored the higher percentage of marks under the category of above average ranging between 10 to 30 and 63% children scored the poor percentage of marks under the category of below average ranging between 0 to 10. The ratio high and low achievers is 37:63; whereas

...351/-

the ratio between the high and low achievers studying at the NFE centres run by the Government agencies is 64:36. The reversed digits of the ratio existing between the high and low achievers of voluntary agencies explicitly signifies the deteriorated standard of performances of NFE children in Mathematics for level II. The following Table explains this:

TABLE NO. 71

1.2.14.2 Distribution of children of voluntary agencies belonging to both the age groups of below 11 and above 11 years on the basis of their performances in Mathematics for level II and according to their classifications of SC/ST/Males/Females/and others.

Characteristics	NFE children of voluntary agencies)							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores								

....352/-

under different class Intervals								
25-30	-	-	-	-	-	-	-	-
20-25	-	-	-	-	-	-	-	-
15-20	6	4	-	-	4	3	-	-
10-15	5	4	3	2	29	20	5	4
5-10	13	9	3	2	33	23	5	4
0-5	9	6	8	6	17	12	2	1

TABLE NO. 72

1.2.14.3 Distribution of children of both the age groups of below 11 years and above 11 years on the basis of their performances in Maths for level II under both the categories of below average ranging between 0 to 10 and above average ranging between 10 to 30 and according to their classifications of SC/ST/Males/Females/Others.

.....353/-

Characteristics	NFE Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under the category of below average								
0 to 10	22	15	11	8	50	35	7	5
Above average								
10 to 30	11	8	3	2	33	23	5	4

1.2.14.4 On the basis of the aforesaid critical analysis the following inferences are drawn:-

1. The standard of the performances of the children of all communities belonging to both the age groups and studying at the NFE centres run by voluntary agencies is very disappointing and discouraging.

.....354/-

It is very very inferior to that of the children studying at the NFE centres run by Government agencies. Only 37% children of all communities scored the high percentage of marks and 63% scored the low percentage of marks ranging between 0 to 10.

2. The standard and competencies of children male and females of SC/ST are very very inferior to that of the children of other communities as regards their achievements towards better performances.

3. The children of SC/ST and others are equally responsible for poor performances.

4. The standard of females of SC/ST is very inferior to that of females of other communities.

5. Further the standard of males of other communities is superior to that of SC/ST in Mathematics.

1.2.14.5 On the whole the study reveals that the performances of children studying at the NFE Centres run by voluntary agencies is very disappointing so far as the academic achievements of children in literacy as well as in numeracy is concerned.

1.2.15 THE PERFORMANCES OF CHILDREN BELONGING TO THE AGE GROUP BELOW 11 YEARS IN MATHEMATICS FOR LEVEL II.

1.2.15.1 As regards the performances of children of all communities to the age group of below 11 years in Mathematics for level II the study reveals that only 26% children scored marks under the category of above average ranging between 10 to 30; whereas 74% children of all communities belong to the same age group scored the poor percentage of marks ranging between 0 to 10. The ratio between the high and low achievers is 26:74 or 1:3 approximately, which is horribly disappointing and discouraging.

The following Table explains this:

1.2.15.2 TABLE NO. 73

Distribution of children belonging to the age group of below 11 years on the basis of their performances in Mathematics for level II and according to their classifications of SC/ST/Male/ Female/and Others.

Characteristics	NFE Children of Voluntary Agencies							
	SC/ST				Others			
	Males		Females		Males		Females	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under different class Intervals								
25-30	-	-	-	-	-	-	-	-
20-25	-	-	-	-	-	-	-	-
15-20	-	-	-	-	1	3	-	-
10-15	3	10	-	-	3	10	1	3
5-10	4	13	1	3	8	26	1	3
0-5	3	10	3	10	2	6	1	3

TABLE NO. 74

1.2.15.3 Distribution of children belonging to the age group of below 11 years on the basis of their performance in Mathematics for level II under the category of below average ranging from 0 to 10 and above average ranging from 10 to 30 according to their classification of SC/ST/Male/Female/Others.

Characteristics	NFE Children of voluntary agencies							
	SC/ST				Others			
	Male		Female		Male		Female	
	No	%	No.	%	No.	%	No.	%
Frequency of scores under the category of below average from								
0- 10	7	23	4	13	10	32	2	6
Above average								
10-30	3	10	-	-	4	13	1	3

....358/-

1.2.15.4 On the basis of the aforesaid of critical analysis the following inferences are drawn:

1. The performance of children of all communities belonging to the age group of below 11 years in Mathematics of level II is extremely disappointing and discouraging and bears the testimony of apathetic attitude, lack of awareness and interest among children for Mathematics. Only 26% children of all communities scored the high percentage of marks, whereas 74% scored the low percentage marks under the category of below average ranging from 0 to 10.

2. The standard of females of SC/ST is very inferior to that of other communities. Moreover, the poor performances of females of SC/ST explicitly signifies the deteriorating standard of females of SC/ST.

3. The males and females of SC/ST and others are equally responsible for good performances in Mathematics.

...359/-

4. The contribution of males and females of SC/ST is very poor towards better performances in Mathematics.

1.2.16 THE PERFORMANCES OF CHILDREN BELONGING TO THE AGE GROUP OF ABOVE 11 YEARS IN MATHEMATICS FOR LEVEL II

1.2.16.1 As regards the performances of children belonging to the age group of above 11 years in Mathematics for level II the study reveals that 40% children scored the high percentage of marks and 60% scored the low percentage of marks. The performance of the children of all communities is though very poor and disappointing yet it is comparatively better than that of belonging to both the age groups and also the age group of below 11 years and is quite evident from the ratio of the percentage of high and low achievers of the children of the following three categories:

1. The ratio between high and low achievers belonging to both the age groups is 37:63.

.....360/-

2. The ratio of the high and low scorers belonging to the age group of below 11 years is 26:74.

3. The ratio of high and low scorers belonging to the age groups of above 11 years is 40:60. The following Table explains this:

TABLE NO. 75

1.2.16.2 Distribution of children belonging to the age group of above 11 years on the basis of their performances in Mathematics for level II and according to their classifications of SC/ST/ Males/Females/Others.

Characteristics	NFE children of voluntary agencies							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under various class Intervals								
25-30	-	-	-	-	-	-	-	-

20-25	-	-	-	-	-	-	-	-
15-20	6	6	-	-	3	3	-	-
10-15	2	2	3	3	26	23	4	4
5-10	9	8	2	2	25	23	4	4
0-5	6	5	5	4	15	13	1	1

1-2.16.3 TABLE NO. 76

Distribution of children belonging to the age group of above 11 years on the basis of their performances in Maths for level II under both the categories of below average ranging between 0 to 10 and above average ranging between 10 to 30 and according to their classifications of SC/ST/ Males/Females/Others

Characteristics	NFE children of voluntary agencies							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of score under the category								

.....362/-

below average ranging between 0-10	15	14	7	6	40	36	5	4
Above average 10-30	8	7	3	3	29	26	4	4

1.2.16.4 On the basis of the aforesaid critical analysis the following inferences are drawn:

1. The performances of the children of all the communities belonging to the age group of above 11 years is better than that of the children belonging to both the age groups of below 11 and above 11 years and the children belonging to the age group of below 11 years.

   But the ratio between the high and low scorers is 40:60 which is extremely disappointing and discouraging and indicates the apathetic attitude of children towards the studies of Mathematics.

2 The standard of the females of SC/ST is very inferior to that of the females of other communities.

3. The standard of males of SC/ST in Mathematics is very inferior to that of the males of other communities.

1.2.17 THE PERFORMANCES OF NFE CHILDREN OF VOLUNTARY AGENCIES BELONGING TO BOTH THE AGE GROUPS OF BELOW 11 YEARS AND ABOVE 11 YEARS IN ENVIRONMENTAL STUDIES FOR LEVEL II:

1.2.17.1 The performance of NFE children of voluntary agencies belonging to both the age groups in Environmental studies for level II is very encouraging. 56% children of all communities scored the high percentage of marks under the category of above average ranging between 10 to 30, whereas only 44% children scored the poor percentage of marks under the category of below average ranging between 0 to 1 0. The ratio between the high and low achievers is 56:44 or 14:11 which is significantly remarkable in

.....364/-

comparison to the performances in language Hindi and Mathematics for level II which is quite evident from the comparative statement of high and low achievers in the subjects given below:

S.No. Subjects	High Achievers		Low Achievers		Ratio between high & low achievers.	
	No.	%	No.	%	No.	%
1. Language Hindi for level II	41	28	103	72	28	72
2. Mathematics for level II	52	37	90	63	37	63
3. Environmental studies for level II	79	56	63	44	56	44

1.2.17.2 The study further reveals that the standard of male and females of SC and ST is far far better

than that of males and females of other communities which is quite evident from the Table given below:

TABLE NO. 77

1.2.17.3 Distribution of children of voluntary agencies to both the age group of below 11 and above 11 years on the basis of their performance in Environmental studies for level II and according to their classifications of SC/ST/Males/Females/ Others.

Characteristics	Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under different Intervals								
25-30	-	-	-	-	-	-	-	-
20-25	-	-	-	-	5	3	1	1
15-20	7	5	6	4	13	9	2	2

10-15	18	8	4	3	25	18	4	3
5-10	10	7	2	2	22	15	5	3
0-5	4	3	2	1	18	13	-	-

TABLE NO. 78

1.2.17.4 Distribution of children belonging to the both the age groups on the basis of their performances under both the categories of below average ranging between 0 to 10 and above average ranging between 10 to 30 and according to their classifications of SC/ST/Male/Female/Others.

Characteristics	Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequencyof scores under the category of below average from								

0-10	14	10	4	3	40	28	5	4
Above average								
10-30	19	13	10	7	43	30	7	5

1.2.17.5 On the basis of the aforesaid critical analysis the following inferences are drawn:

1. The performances of children of all communities belonging to both the age groups in Environmental studies for level II is far better than that of the children in language and Mathematics for level II. 56% NFE children of all communities scored the high percentage of marks, whereas 44% scored the low percentage of marks.

2. The standard of achievements of the males and females of SC/ST is superior to that of the children males and females of other communities.

3. The males of other communities have contributed more towards poor performances

... ..368/-

than the males of SC/ST by scoring the marks under the category of below average ranging between 0 to 10.

4. The males of other communities have contributed more towards better performances than those of SC/ST by scoring the higher percentage of marks under the category of above average ranging between 10 to 30.

1.2.18 THE PERFORMANCES OF NFE CHILDREN OF VOLUNTARY AGENCIES BELONGING TO THE AGE GROUP OF BELOW 11 YEARS IN ENVIRONMENTAL STUDIES FOR LEVEL II:

1.2.18.1 As regards the performance of children belonging to the age group below 11 years in Environmental studies for level II, the study reveals that the standard of achievement of the children has considerably deteriorated in comparison to the children of both the age groups. Here the ratio between the high and low achievers is 52:48 whereas it has been 56:44 in the case of the children belonging to both the age groups.

...369/-

The following Table explains this:

TABLE NO. 79

1.2.18.2 Distribution of children belonging to the age group of below 11 years on the basis of their performances in Environmental studies for level II and according to their classifications of SC/ST/Male/Female/Others.

Characteristics	NFE children of voluntary agencies							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under different class Intervals								
25-30	-	-	-	-	-	-	-	-
20-25	-	-	-	-	1	3	-	-
15-20	2	6	1	3	5	16	1	3
10-15	4	13	1	3	-	-	1	3
5-10	3	10	2	6	2	6	1	3
0-5	1	3	-	-	6	19	-	-

.....370/-

TABLE NO. 80

1.2.18.3 Distribution of children belonging to the age group of below 11 years on the basis of their performances in Environmental studies for level II under both the categories of below average ranging between 0 to 10 and above average ranging between 10 to 30 and according to their classifications of SC/ST/Male/Female/Others.

Characteristics	NFE children of voluntary agencies							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No	%	No	%	No.	%
Frequency of scores under the category of below average ranging								
0-10	4	13	2	6	8	26	1	3
Above average								
10-30	6	19	2	7	6	19	2	7

.....371/-

1.2.18.4 On the basis of the aforesaid critical analysis the following inferences are drawn:

1. The standard of the achievements of the children of all communities belonging to the age group of below 11 years in Environmental studies for level II has considerably deteriorated in comparison to the children belonging to both the age groups of below 11 and above 11 years.

2. The standard of the females of SC/ST is inferior to that of the females of other communities in Environmental studies for level II.

3. Though the males and females both of SC/ST and others are equally responsible for better performances but the standard of achievements of the males of other communities is inferior to that of the males of SC/ST.

4. 52% children of all communities scored the high percentage of marks, whereas 48% scored the low percentage of marks.

....372/-

1.2.19 PERFORMANCES OF CHILDREN BELONGING TO THE AGE GROUP OF ABOVE 11 YEARS IN ENVIRONMENTAL STUDIES FOR LEVEL II

1.2.19.1 As regards the performances of children belonging to the age group of above 11 years in Environmental studies for level II the study reveals that 57% children of all communities scored the high percentage of marks under the category of above average ranging between 10 to 30, whereas 43% children of the same age group scored the poor percentage of marks ranging between 0 to 10. The ratio between the high and low achievers is 57:43.

The following Table explains this:

TABLE NO. 81

1.2.19.2 Distribution of children belonging to the age group of above 11 years on the basis of their performances in Environmental studies for level II and according to their classification of SC/ST/Males/Females/Others.

Characteristics	NFE children of voluntary agencies							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under different Intervals								
25-30	-	-	-	-	-	-	-	-
20-25	-	-	-	-	4	4	1	1
15-20	5	5	5	4	8	7	1	1
10-15	8	7	3	3	25	22	3	3
5-10	7	6	-	-	20	18	4	4
0-5	3	3	2	2	12	11	-	-

TABLE NO. 82

1.2.19.3 Distribution of children of voluntary agencies belonging to the age group of above 11 years on the basis of their performances in Environmental

......374/-

studies for level II under both the categories of below average ranging between 0 to 10 and above average ranging from 10 to 30 and according to their classifications of SC/ST/Male/Female/Others.

Characteristics	NFE children of voluntary agencies							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under the category of below average ranging from 0 to 10	10	9	2	2	32	29	4	4
Above average 10-30	13	12	8	7	37	33	5	5

1.2.19.4 On the basis of the aforesaid critical analysis the following inferences are drawn:

1. 57% children of all communities scored the

high percentage of marks whereas 43% scored the low percentage of marks in Environmental studies for level II.

2. It is very encouraging that the standard of the achievements of the females of SC/ST is superior to that of the females of other communities as regards their contribution towards low as well as high performances is concerned.

3. The males of SC and ST and other equally responsible forlow and high achievements in Environmental studies for level II.

1.2.20 PERFORMANCES OF NFE CHILDREN OF VOLUNTARY AGENCIES BELONGING TO BOTH THE AGE GROUPS OF BELOW 11 AND ABOVE 11 YEARS IN NATURAL SCIENCE FOR LEVEL II:

1.2.20.1 As regards the performance of NFE children of both the age groups studying at the NFE centres run by voluntary agencies in Natural Science for level II the study reveals that 60% children of all the communities scored the high percentage of marks under the category of above average ranging between

10 to 30 whereas only 40% scored the low percentage of marks ranging between 0 to 10. The ratio between the high and low achievers is 60:40 which is significantly remarkable.

The following Table explains this:

TABLE NO. 83

1.2.20.2 Distribution of NFE children of both the age groups of (Below 11 and above 11 years) on the basis of their performances in Natural Science for level II according to their classifications of SC/ST/Male/Females/and Others.

Characteristics	NFE children of voluntary agencies							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of score under different class Intervals								
25-30	-	-	-	-	-	-	-	-
20-25	1	1	-	-	10	7	2	1
15-20	11	8	7	5	11	8	5	3

10-15	10	7	3	2	20	14	5	4
5-10	7	5	2	1	24	17	-	-
0-5	4	2	2	2	18	13	-	-

1.2.20.3 The aforesaid Table indicates that the standard of achievements of the children males and females of SC/ST in Natural Science is significantly remarkable and is superior to that of the children (male and females) of other communities, which is quite evident from the Table given below:

TABLE NO. 84

1.2.20.4 Distribution of NFE children belonging to both the age groups of below 11 and above 11 years on the basis of their performance in Natural Science for level II under both the categories of below average ranging from 0 to 10 and above average ranging from 10 to 30 and according to their classifications of SC/ST/Males/Females/Others.

...378/-

Characteristics	NFE children of voluntary agencies							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under the category of below average from								
0 to 10	11	8	4	3	42	29	-	-
Above average								
10-30	22	16	10	7	41	29	12	8

1.2.20.5 On the basis of the aforesaid critical analysis the following inferences are drawn:-

1. The performances of NFE children belonging to both the age group of below 11 and above 11 years in Natural Science for level II is significantly remarkable. 60% children scored the high percentage of marks ranging between 10 to 30, whereas only 40% scored low percentage of marks.

.....379/-

2. The standard of achievements of the females of SC/ST is inferior to that of the female of other communities.

3. The females of SC and ST and others are equally responsible for better performances.

4. The standard of achievements of males of SC/ST is better than that of the males of other, which is very much encouraging.

5. The standard of achievements of males and females of SC/ST is significantly remarkable and is superior to that of the children male females of other communities.

1.2.21 PERFORMANCES OF NFE CHILDREN BELONGING TO THE AGE GROUP OF BELOW 11 YEARS IN NATURAL SCIENCE FOR LEVEL II

1.2.21.1 As regards the performances of the NFE children studying at the NFE centres run by voluntary agencies and belonging to the age group of below 11 years in Natural Science for level II, the study reveals that the standard of achievements of the children has considerably deteriorated in comparison to the children of both the age groups. Only 52% children

of all communities have scored the better percentage of marks ranging between 10 to 30. Whereas 48% children scored the low percentage of marks ranging between 0 to 10. The ratio between high and low achievers is 52:48 whereas it has been 60:40 in case of the children belonging to both the age groups.

The following Table explains this:

TABLE NO. 85

Characteristics	NFE children of voluntary agencies							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under different class intervals								
25-30	-	-	-	-	-	-	-	-
20-25	-	-	-	-	2	7	1	3
15-20	2	6	1	3	2	6	1	4
10-15	5	16	1	3	-	-	1	3
5-10	2	6	2	7	4	13	-	-
0-5	1	4	-	-	6	19	-	-

1.2.21.3 It is quite evident from the aforesaid Table that 23% males of SC/ST scored the high percentage of above average ranging between 10 to 30, whereas only 13% males of other communities scored the high percentage of marks ranging between 10 to 30, which explicitly signifies that the standard of achievements of males of SC/ST is remarkably superior to that of the males of other communities which is quite evident from the Table given below:-

TABLE NO. 86

Characteristics	NFE Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under the category of below average ranging between								
0 to 10	3	10	2	6	10	32	-	-
Above Average								
10 to 30	7	23	2	6	4	13	3	10

....382/-

1.2.21.5 On the basis of the aforesaid critical analysis the following inferences are drawn:-

1. The standard of academic achievements in Natural Science for level II of all the children belonging to the age group of below 11 years is very inferior to that of the children belonging to both the age groups of below 11 and above 11 years. Only 52% children scored the high percentage of marks under the category of above average; whereas 48% scored low percentage of marks.

2. The standard of academic achievement of the females of SC/ST is significantly inferior to that of the females of others communities in Natural Science for level II.

3. It is very encouraging that the standard of academic achievements of the males of SC/ST is remarkably superior to that the males of other communities in Natural Science for level II.

4. The standard of academic achievements of males and females of SC/ST is considerably superior

to that of the males and females of other communities which is very encouraging and bears the proof of awareness of SC/ST males and females for natural science.

1.2.22 THE PERFORMANCE OF NFE CHILDREN BELONGING TO THE AGE GROUP OF ABOVE 11 YEARS ON NATURAL SCIENCE FOR LEVEL II

1.2.22.1 From the perusal of the preceding pages it is quite evident that as the children cover up the entire course prescribed for level II and attain the age above 11 years their comprehension and understanding develops considerably and they develop desired competencies in different subjects. This also applies to the age group of above 11 years in Natural Science for level II. The present study reveals that 62% children of all communities of above 11 years. Age group have scored the high percentage of marks under the category of above average ranging between 10 to 30 whereas only 38% children scored the low percentage of marks ranging between 0 to 10. The ratio between the high and low

....384/-

achievers is 62:38 which is significantly encouraging. The following Table explains this:

TABLE NO. 87

1.2.22.2 Distribution of NFE children belonging to the age group of above 11 years on the basis of their performances in Natural Science for level II and according to their classification of SC/ST/Males/Females and others.

Characteristics	NFE children of voluntary agencies							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under diff rent class intervals								
25-30	-	-	-	-	-	-	-	-
20-25	1	1	-	-	8	7	1	1
15-20	9	8	6	5	9	8	4	4
10-15	5	5	2	2	20	18	4	3
5-10	5	5	-	-	20	18	-	-
0-5	3	2	2	2	12	11	1	-

.....385/-

TABLE NO. 88

1.2.22.3 Distribution of NFE children belonging to the age group of above 11 years on the basis of their performance in Natural Science for level II under both the categories of below average ranging between 0 to 10 and above average ranging between 10 to 30 and according to their classifications of SC/ST/Male/Female/Others.

Characteristics	NFE children of voluntary agencies							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under the category of below average from								
0 to 10	8	7	2	2	32	29	-	-
Above average								
10 to 30	15	14	8	7	37	33	9	8

....386/-

1.2.22.4 On the basis of the aforesaid critical analysis the following inferences are drawn:-

1. The performances of all NFE children belonging to the age group of above 11 years is significantly remarkable in comparision of the performance of the children belonging to both the age group as well as those belonging to the age group of below 11 years and is very encouraging.

2. It is remarkable encouraging to note that the standard of academic achievement of Males and females of SC/ST is superior to that of the males and females of other communities and testifies their aptitude, inclination and interest towards Natural Science more than the females of other communities.

3. 62% children of all communities scored the high percentage of marks under the category of above average ranging between 10 to 30; whereas only 38% scored the low percentage of marks ranging between 0 to 10. The ratio between the high and low achievers is 62:38

or 3:2 approximately; which is significantly remarkable; whereas the ratio between the high and low achievers belonging to both the age groups of below 11 and above 11 years is 60:40 and that of belonging to the age group of below 11 years is 52:48. Comparative Statement of the performances of NFE children studying at the NFE centres run by the voluntary agencies (District Adult Education Association, Ajmer and Lok Shikshan Sansthan, Jaipur) and belonging to different age groups- below 11 years, above 11 years and both the age groups of below 11 and above 11 years in different subjects - Language, Mathematics, Environmental studies and Natural Science for level I and level II.

Characteristics	Pefformance in Language Hindi							
	Level I				Level II			
	Percentage of children scoring the marks under the category of				Percentage of children scoring the marks under the category of			
Different age groups	Below Average		Above Average		Below Average		Above average	
	0 to 10		10 to30		0 to 10		10 to 30	
	All communities	SC/ST	All communities	SC/ST	All communities	SC/ST	All communities	SC/ST
Below 11 years	80%	36%	20%	6%	81%	36%	19%	9%
Above 11 years	63%	6%	37%	13%	67%	14%	33%	15%
Both the age groups below 11 years and above 11 years	75%	28%	25%	8%	72%	19%	28%	14%

......389/-

From the perusal of the aforesaid statement it is quite evident that the NFE children of voluntary agencies belonging to the age group of above 11 years maintained the best performances in Language-Hindi for level I as well as for level II.

37% children of all communities scored the highest percentage of marks under the category of above average ranging between 10 and 30 in language Hindi for level I; whereas 33% children scored the highest percentage of marks in Hindi for level II.

Further 13% children of SC/ST contributed towards highest performances for level I, whereas 15% contributed towards the highest percentage for level II, which bears the testimony of the fact that the standard of scholastic achievement of the children of SC/ST for level II is better than that of the SC/ST contributing towards high percentage of marks for level I in language Hindi.

Comparative statement of the performances of NFE children studying at the NFE centres run by the

.....390/-

voluntary agencies and belonging to different age groups of below 11 years, above 11 years and both the age groups of below 11 and above 11 years in Mathematics for level I and level II.

Characteristics	Level I				Level II			
Different age groups	Percentage of children scoring the marks under the category of				Percentage of children scoring the marks under the category of			
	Below Average 0-10		Above Average 10-30		Below Average 0-10		Above Average 10-30	
	All communities	SC/ST	All communities	SC/ST	All communities	SC/ST	All communities	SC/ST
Below 11 years	31%	13%	69%	30%	74%	36%	26%	10%
Above 11 years	22%	2%	78%	18%	60%	20%	40%	10%
Both the age groups of below 11 and above 11 years	29%	11%	71%	27%	63%	23%	37%	10%

It is quite evident from the aforesaid statement that the NFE children of voluntary agencies belonging to the age group of above 11 years maintained the best performances in Mathematics for both the levels (for level I as well as for level II).

78% of NFE children of all communities scored the highest percentage of marks under the category of above average ranging from 10 to 30 in Mathematics for level I; whereas 40% children scored the highest percentage of marks ranging between 10 and 30 in Maths for level II.

The aforesaid statement further reveals that 18% children of SC/ST contributed towards better performances by scoring the marks under the category of above average ranging from 10 to 30 in Maths for level I. The ratio between the high achievers of both the classes - children of all communities and that of SC/ST is 78:18 or 4:1 approximately.

....392/-

Similarly 10% children (Male and females) of SC/ST scored the highest percentage of marks under the category of above average ranging between 10 to 30 in Mathematics for level II. The ratio between the high achievers of both the classes of children of all communities and that of SC/ST is 40:10 or 4:1.

On the basis of the aforesaid critical analysis it explicitely signifies that the children of SC/ST equally contributed towards high performances in Maths for level I as well as for level II.

Comparative statement of the performances of NFE children studying at the NFE centres run by the voluntary agencies and belonging to different agegroups of below 11 years, above 11 years and both the age groups of below 11 years and above 11 years in Environmental Studies for level I and level II.

Characteristics	Level I				Level II			
	Percentage of children scoring the marks under the category of				Percentage of children scoring the marks under the category of			
Different age groups	Below average 0-10		Above average 10-30		Below average 0-10		Above average 10-30	
	All communities	SC/ST	All communities	SC/ST	All communities	SC/ST	All communities.	SC/ST
Below 11 years	53%	27%	47%	15%	48%	19%	52%	26%
Above 11 years	35%	9%	65%	11%	43%	11%	57%	19%
Both the age groups of below 11 years and above 11 years.	48%	23%	52%	14%	44%	13%	56%	20%

From the perusal of the aforesaid statement it is quite evident that the NFE children of voluntary agencies belonging to the age group of above 11 years maintained the best performances in Environmental Studies

for level I as well as for level II.

65% children of all communities scored the highest percentage of marks under the category of above average ranging between 10 and 30 in Environmental studies for level I; whereas the highest percentage of 57% children scored the best percentage of marks in environmental studies for level II.

Further 11% children of SC/ST (Male and female) contributed towards the best performances for level I, whereas 19% SC/ST contributed in environmental studies for level II towards best performances; which explicitly signifies that the standard of the scholastic achievement of the children of SC/ST in environmental studies for level II is far superior to that of the children of SC/ST contributing towards the best performances in the aforesaid subject for level I.

Comparative statement of the performance of NFE children studying at the NFE centres run by the voluntary agencies and belonging to different age groups of below 11 years, above 11 years and both the age groups of below 11 years, and above

11 years in natural science for level II.

Characteristics	Percentage of children scoring the marks under the category of			
Different age groups	Below average ranging between 0 and 10		Above average ranging between 10 and 30	
	All communities	SC/ST	All communities	SC/ST
Below 11 years	58%	16%	52%	29%
Above 11 years	38%	9%	62%	21%
Both the age groups of below 11 years and above 11 years	40%	11%	60%	23%

It is quite evident from the aforesaid statement that the NFE children of voluntary agencies belonging to the age group of above 11 years maintained the best performances in Natural Science. The highest percentage of children i.e. 62% scored the highest percentage of marks under the category of above average ranging between 10 and 30 in Natural Science for level II.

Further 21% children of SC/ST (Male and female) belonging to the age group of above 11 years contributed towards the aforesaid best performances. The ratio between the NFE children of all communities and those of SC/ST is 62:21 or 3:1; which is remarkably significant and bears the testimony of the aptitude, interest, inclination and high aspirations of the children of SC/ST belonging to the age group of above 11 years towards Natural Science.

CONCLUSION:

On the basis of the aforesaid critical analysis it is quite evident that the standard of the scholastic achievements of the NFE children studying at the NFE centres run by the voluntary agencies and belonging to the age group of above 11 years is superior to that of the children belonging to the age group of below 11 years as well as both the age group of below 11 and above 11 in all the subjects of languages Hindi, Mathematics, Environmental studies and Natural Science for both the levels of I and II.

It further very explicitly signifies that the contribution of the NFE children belonging to the weaker sections of the society i.e. SC/ST belonging to the age group of above 11 years towards best performances has been significantly remarkable and bears the testimony of their high aspirations for leading a better life on getting education at the NFE centres run by the voluntary agencies.

CHAPTER - V

PART - III

1.3 COMPARISON OF PERFORMANCE OF NFE CHILDREN WITH FORMAL SCHOOL CHILDREN IN TERMS OF FREQUENCY OF MARKS ATTAINED IN A PARTICULAR RANGE OF MARKS

1.3.1 INTRODUCTION:

From the perusal of the preceding chapter it is quite evident that in order to compare the performances of NFE children with formal school children the same achievement tests in language Hindi, Mathematics, Environmental studies and Natural Science were administered to the formal school children of the sample in accordance with the set criteria.

1.3.2 GENERAL INFORMATION ABOUT THE CLIENTLE (FORMAL SCHOOL CHILDREN)

1.3.2.1 According to the criterian fixed for administering the tests 100 Formal school children of the sample of four Government Primary schools @ 25 children belonging to the age groups of below 11 and above 11 years (15 from level I and ten from level II) ought to have appeared at the

tests. But actually 83 formal school children (Male and female) of all communities including SC/ST appeared; the percentage being 83%; which is quite significant.

1.3.2.2 Out of the aforesaid number of formal school children 73% appeared at the tests meant for level I, whereas 97.5% of the set criteria appeared at the tests meant for level II, which is significantly remarkable.

1.3.2.3 As regards the contribution of children belonging to the weaker sections of the society i.e. SC/ST and females the study reveals a very disappointing and distressing situation. Only 5% children (Males) of SC/ST and 1% female of other communities appeared at the tests.

1.3.2.4 The study further reveals that no female of SC/ST appeared at the tests meant for level I, and no female of any community (either SC/ST or others) appeared at the achievement tests meant for

.....400/-

1.3.3 FORMAL SCHOOL CHILDREN AND THEIR ACADEMIC ACHIEVEMENTS

1.3.3.1 PERFORMANCE OF FORMAL SCHOOL CHILDREN IN LANGUAGE HINDI FOR LEVEL I

1.3.3.2 As regards the performance of formal school children belonging to both the age groups of below 11 and above 11 years in language Hindi for level I.

1.3.3.3 The study reveals that 61% formal school children of all communities males and females belonging to both the age groups scored the high percentage of marks under the category of above average ranging between 10 and 30 in language Hindi for level I; whereas 39% scored the low percentage of marks under the category of below average ranging between 0 to 10. The ratio between the high and low achievers is 61:39 or 3:2 approximately which is quite significant.

1.3.3.4 Only 2% Male of SC/ST contributed towards high performances.

1.3.3.5 The study further reveals that 2% female of other communities scored the low percentage of marks

....401/-

under the category of below average ranging from 0 to 10 and contributed towards poor performance in language Hindi for level I; which is quite evident from the table given below:

TABLE NO. 89

1.3.3.6 Distribution of formal school children belonging to both the age groups of below 11 and above 11 years on the basis of their performance in language Hindi for level I and according to their classifications of SC/ST/Male/Female/Others.

Characteristics	Formal school children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under various class intervals								
25-30	-	-	-	-	-	-	-	-
20-25	-	-	-	-	1	2	-	-
15-20	1	2	-	-	14	32	-	-

....402/-

10-15	-	-	-	-	11	25	-	-
5-10	-	-	-	-	8	18	1	2
0-5	-	-	-	-	8	18	-	-

TABLE NO. 90

1.3.3.7 Distribution of formal school children on the basis of their performances in language Hindi for level I under both the categories of below average ranging between 0 to 10 and above average ranging between 10 to 30 and according to their classifications of SC/ST/Male/Female/Others.

Characteristics	Formal School children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of score under the category of below average ranging from								
0-to 10	-	-	-	-	16	36	1	3
Above Average								
10 to 30	1	2	-	-	26	59	-	-

...403/-

1.3.4 PERFORMANCE OF FORMAL SCHOOL CHILDREN IN LANGUAGE HINDI FOR LEVEL II.

1.3.4.1 As regards the performance of formal school children belonging to both the age groups of below 11 and above 11 years in language Hindi for level II the study reveals that:

1.3.4.2 59% Formal school children of all the communities scored the high percentage of marks under the category of above average ranging between 10 to 30 in language Hindi for level II; whereas 41% of them scored the low percentage of marks under the category of below average ranging from 0 to 10. The ratio between the high and low achievers is 59:41; which indicates that the standard of formal school children has deteriorated in comparison with their performance in language for level I.

1.3.4.3 8% Males of SC/ST have contributed towards poor performance.

1.3.4.4 Only 2% males scored the high percentage of marks ranging between 10 to 30 and contributed towards high performances.

....404/-

1.3.4.5 No female of any community SC/ST or others appeared at the test in language for level II; which is quite evident from the Tables given below:

TABLE NO. 91

1.3.4.6 Distribution of Formal school children belonging to both the age groups of below 11 and above 11 years on the basis of their performance in language for level II and according to their classifications of SC/ST/Male/Female/Others:

Characteristics	Formal school children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under different class Intervals								
25-30	-	-	-	-	-	-	-	-
20-25	1	3	-	-	7	18	-	-
15-20	-	-	-	-	9	23	-	-
10-15	-	-	-	-	6	15	-	-
5-10	3	8	-	-	7	18	-	-
0-5	-	-	-	-	6	15	-	-

TABLE NO. 92

1.3.4.7 Distribution of Formal school children on the basis of their performance in Language Hindi for level II under both the categories of below average ranging between 0 to 10 and above average ranging from 10 to 30 and according to their classifications of SC/ST/Male/Female/Others.

Characteristics	Formal School children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under the category of below average ranging from								
0 to 10	3	8	-	-	13	33	-	-
Above average								
10 to 30	1	3	-	-	22	56	-	-

.....406/-

1.3.5 PERFORMANCE OF FORMAL SCHOOL CHILDREN OF BOTH THE AGE GROUPS IN MATHEMATICS FOR LEVEL I

1.3.5.1 The study reveals that 68% formal school children (Male and Female) of all communities scored the high percentage of marks under the category of above average ranging between 10 to 30; whereas 32% scored the low percentage of marks under the category of below average ranging from 0 to 10. The ratio between the high and low achievers is 68:32 or 2:1 approximately; which is remarkable significant.

1.3.5.2 2% Males of SC/ST contributed towards high performance by scoring the marks under the category of above average .

1.3.5.3 Similarly 2% females of other communities also contributed towards better performances.

1.3.5.4 No child (Male or female) of any community (SC/ST or others) scored the low percentage of marks under the category of below average ranging from 0 to 10 which is quite evident from the Tables;

.....407/-

TABLE NO. 93

1.3.5.5 Distribution of formal school children belonging to both the age groups of below 11 and above 11 years on the basis of their performances in Mathematics for level I and according to their classifications of SC/ST/Male/Females|Others:

Characteristics	Formal school children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under different class Intervals								
25-30	-	-	-	-	2	5	1	2
20-25	1	2	-	-	13	30	-	-
15-20	-	-	-	-	9	20	-	-
10-15	-	-	-	-	4	9	-	-
5-10	-	-	-	-	4	9	-	-
0-5	-	-	-	-	10	23	-	-

....408/-

TABLE NO. 94

1.3.5.6 Distribution of Formal School children of both the age groups on the basis of their performance in Mathematics for level I under both the categories of below average ranging between 0 to 10 and above average ranging from 10 to 30 and according to their classifications of SC/ST/Male/Female/Others.

Characteristics	Formal School Children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under the category of Below average								
0-10	-	-	-	-	14	32	-	-
Above Average								
10-30	1	2	-	-	28	64	1	2

1.3.6 PERFORMANCE OF FORMAL SCHOOL CHILDREN BELONGING TO BOTH THE AGE GROUPS OF BELOW 11 AND ABOVE 11 YEARS IN MATHEMATICS FOR LEVEL II.

1.3.6.1 As regards the performance of formal school children belonging to both the age groups in Mathematics for level II the study reveals that 62% formal school children scored the high percentage of marks under the category of above average ranging between 10 and 30; whereas 38% scored the low percentage of marks ranging between 0 to 10. The ratio between the high and low achievers in Mathematics for level II is 62:38; which bears the testimony of the deteriorating standard of the performance of formal school children in Mathematics for level II in comparison with that of level I.

1.3.6.2 8% Formal school children of SC/ST scored the high percentage of marks under the category of above average ranging between 10 to 30; whereas only 2% of them scored the low percentage of marks. The ratio between the high and low achieving formalschool children of SC/ST is 8:2 or 4:1 which is remarkably significant.

....410/-

1.3.6.3 The standard of the performance of formal school children in Mathematics for level II is inferior to that of the children of SC/ST.

1.3.6.4 The study further reveals that the remarkable performance of SC/ST of formal school children explicitly signifies their aptitude, inclination, interest and motivation, towards Maths and their high aspirations for leading a better life through education; which is quite evident from the tables given below:

TABLE NO. 95

1.3.6.5 Distribution of Formal school children belonging to both the age groups of below 11 and above 11 years on the basis of their performances in Mathematics for level II and according to their classifications of SC/ST/Male/Female/Others.

Characteristics	Formal school children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under different intervals								
25-30	-	-	-	-	1	2	-	-

20-25	-	-	-	-	3	8	-	-
15-20	2	5	-	-	8	21	-	-
10-15	1	3	-	-	9	23	-	-
5-10	-	-	-	-	14	36	-	-
0-5	1	2	-	-	-	-	-	-

TABLE NO. 96

1.3.6.6 Distribution of Formal school children of both the age groups on the basis of their performance in Mathematics for level II and under both the categories of below average ranging between 0 to 10 and above average ranging from 10 to 30 and according to their classifications of SC/ST/Male/Female/Others.

Characteristics	Formal school children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under the category of below average								
0-10	1	2	-	-	14	36	-	-
Above average								
10-30	3	8	-	-	21	54	-	-

...412/-

1.3.7 PERFORMANCE OF FORMAL SCHOOL CHILDREN OF BOTH THE AGE GROUPS IN ENVIRONMENTAL STUDIES FOR LEVEL II:

1.3.7.1 Only 59% Formal school children of both the age groups and belonging to all communities scored the high percentage of marks under the category of above average ranging between 10 and 30 in environmental studies for level II; whereas 41% scored the low percentage of marks ranging between 0 to 10. The ratio between the high and low achievers is 59:41; which is very much discouraging.

1.3.7.2 Only 2% male of SC/ST contributed towards better performances by scoring the high percentage of marks.

1.3.7.3 Similarly 2% female of other communities also scored high percentage of marks and contributed towards better performances.

1.3.7.4 The study further reveals that the standard of scholastic achievements of Males belonging to other communities is inferior to that of male and female of SC/ST and others in environmental studies for level I.

....413/-

1.3.7.5 The maximum No. of formal school children 32% scored the lowest percentage of marks under below average ranging from 0 to 5, which is quite evident from the Table given below:

TABLE NO. 97

1.3.7.6 Distribution of formal school children of both the age groups on the basis of their performance in environmental studies for level I and according to their classifications of SC/ST/Male/Female/Others.

Characteristics	Formal school children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under different intervals								
25-30	-	-	-	-	-	-	-	-
20-25	-	-	-	-	5	11	-	-
15-20	-	-	-	-	10	23	-	-
10-15	-	-	-	-	9	21	1	2
5-10	-	-	-	-	4	9	-	-
0-5	-	-	-	-	14	32	-	-

TABLE NO. 98

.3.7.7 Distribution of formal school children of both the age groups on the basis of their performance in Environmental studies for level I under both the categories of below average ranging between 0 to 10 and above average ranging from 10 to 30 and according to their classifications of SC/ST/Male/Female/Others.

Characteristics	Formal School children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under the category of below average								
0-10	-	-	-	-	18	41	-	-
Above average								
10-30	1	2	-	-	24	55	1	2

1.3.8 PERFORMANCE OF FORMAL SCHOOL CHILDREN OF BOTH THE AGE GROUPS IN ENVIRONMENTAL STUDIES FOR LEVEL II:

1.3.8.1 82% formal school children scored the high percentage of marks under the category of above average ranging from 10 to 30 in Environmental studies for level II; whereas only 18% of them scored the low percentage of marks under the category of below average ranging from 0 to 10. The ratio between the high and low achievers is 82:18; which is significantly remarkable and very encouraging.

1.3.8.2 10% formal school children SC/ST (80% of the sample) contributed towards high performance by scoring the high percentage of marks under the category of above average; which bears the testimony of the desired developed competency of formal school children of SC/ST in environmental studies and their high aspirations for leading a better life.

1.3.8.3 No female of SC/ST and others appeared at the aforesaid test, which is quite evident from the Table given:

...416/-

TABLE NO. 99

1.3.8.4 Distribution of formal school children of both the age groups on the basis oftheir performance in environmental studies for level II and according to their classifications of SC/ST/Male/Female/Others.

Characteristics	Formal School children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under different intervals								
25-30	-	-	-	-	-	-	-	-
20-25	1	3	-	-	11	28	-	-
15-20	1	2	-	-	6	16	-	-
10-15	2	5	-	-	11	28	-	-
5-10	-	-	-	-	2	5	-	-
0-5	-	-	-	-	5	13	-	-

TABLE NO. 100

1.3.8.5 Distribution of formal school children belonging to both the age groups of below 11 and above 11 years on the basis of their performances in environmental studies for level II under both the categories of below average ranging from 10 to 30 and according to their classifications of SC/ST/Male/Female/Others.

Characteristics	Formal school children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No	%	No	%	No.	%	No.	%
Frequency of scores under the category of below average								
0-10	-	-	-	-	7	18	-	-
Above average								
10-30	4	10	-	-	28	72	-	-

...418/-

1.3.9 PERFORMANCE OF FORMAL SCHOOL CHILDREN OFBOTH THE AGE GROUPS IN NATURAL SCIENCE FOR LEVEL II

1.3.9.1 As regards the performance of Formal school children belonging to both the age groups of below 11 and above 11 years in Natural Science for level II the study reveals that 85% formal school children of all communities scored the high percentage of marks under the category of above average ranging from 10 to 30 in Natural Science for level II whereas only 15% of them scored the low percentage of marks under the category of below average ranging from 0 to 10. The ratio between the high and low achievers is 85:15 or 6:1 approximately, which is significantly remarkable and bears the testimony of formal school children having aptitude interest, inclination and motivation towards Natural Science.

1.3.9.2 All the formal school children belonging to SC/ST contributed towards better performances scoring the high percentage of marks under the category of above average; which is very much encouraging and bears the testimony of the children belonging to the weaker section of the society i.e. SC/ST having

....419/-

high aspirations for leading a better life in future through acquiring education.

1.3.9.3 No female of SC/ST and others appeared at the aforesaid test; which is quite evident from the Tables given below:

TABLE NO. 101

1.3.9.4 Distribution of formal school children of both the age groups on the basis of their performance in Natural Science for level II and according totheir classifications of SC/ST/Male/Female/Others:

Characteristics	Formal School children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under different intervals								
25-30	-	-	-	-	1	3	-	-
20-25	1	2	-	-	10	26	-	-
15-20	1	3	-	-	7	18	-	-
10-15	2	5	-	-	11	28	-	-
5-10	-	-	-	-	2	5	-	-
0-5	-	-	-	-	4	10	-	-

...420/-

TABLE NO. 102

1.3.9.5 Distribution of formal school children of both the age groups on the basis of their performances in Natural science for level II under both the categories of below average ranging from 0 to 10 and above average ranging from 10 to 30 and according to their classifications of SC/ST/Male/Female/Others:

Characteristics	Formal School children							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Frequency of scores under the category of below average								
0-10	-	-	-	-	6	15	-	-
Above average								
10-30	4	10	-	-	29	75	-	-

.....421/-

1.3.10 Comparative statement of the performances of formal school children in different subjects of language Hindi, Mathematics, Environmental Studies and Natural Science for level I and level II.

Characteristics	Level I Percentage of children scoring the marks under the category				Level II Percentage of children scoring the marks under the category			
Different Subjects	Below average 0-10		Above average 10-30		Below average 0-10		Above average 10-30	
	All communities	SC/ST	All communities	SC/ST	All Communities	SC/ST	All communities	SC/ST
Language	39%	-	61%	2%	41%	8%	59%	2%
Mathematics	32%	-	68%	2%	38%	2%	62%	[illegible]
Environmental Studies	41%	-	59%	2%	18%	-	82%	10%
Natural Science	-	-	-	-	15%	-	85%	10%

1.3.10.1 Comparison of the performances of formal school children (of four Government Primary schools of the sample) belonging to both the age groups of below 11 .

....422/-

and above 11 years in different subjects of Language Hindi, Mathematics, Environmental Studies and Natural Science for level I with level II.

1.3.10.2 On the basis of the critical analysis and the comparative statement of the performances of formal school children the following inferences are drawn:

LANGUAGE HINDI FOR LEVEL I AND LEVEL II:

1.3.10.2.1 61% formal school childre scored the high percentage of marks under the category of above average ranging between 10 and 30 in language Hindi for level I; whereas only 59% scored the high percentage of marks in language Hindi for level II. The ratio between them exists as 61:59; which bears the testimony of the fact that the standard of scholastic achievement of formal school children has deteriorated in language for level II.

1.3.10.2.2 No child (Male or female) for SC/ST contributed, towards low percentage of marks in language for level I; but 8% children of SC/ST contributed towards the poor performance in language for level II.

1.3.10.2.3 2% children of SC/ST contributed towards the high performance in language for level I as well as for level II; which is quite insignificant.

1.3.10.3 MATHEMATICS FOR LEVEL I AND LEVEL II:

1.3.10.3.1 68% formal school children scored the high percentage of marks under the category of above average ranging from 10 to 30 in Mathematics for level I; whereas 62% of them scored the high percentage of marks under the aforesaid category. The ratio between their percentage exists as 68:62; which explicitlysignifies that the standard of scholas-tictic achievements of formal school children has deteriorated in Mathematics for level II.

1.3.10.3.2 No child of SC/ST contributed towards poor performance in Mathematics for level I; but 2% children of SC/ST contributed towards the low achievements in Mathematics for level II.

1.3.10.3.3 Only 2% children of SC/ST contributed towards the high performance in M ths for level I; whereas 8% SC/ST contributed towards better performance in Maths for level II; which is quite insignificant.

1.3.10.4 ENVIRONMENTAL STUDIES FOR LEVEL I AND LEVEL II:

1.3.10.4.1 Only 59% formal school children scored the high percentage of marks under the category of above average in Environmental studies for level I; whereas

82% formal school children scored the high percentage of marks under the aforesaid category in Environmental studies for level II. The ratio between them exists as 59:82; which indicates that the standard of scholastic achievements in Environmental studies for level II has very considerably been improved.

1.3.10.4.2 No child of SC/ST contributed towards poor performances in Environmental studies for level I as well as for level II.

1.3.10.4.3 Only 2% children of SC/ST contributed towards the high percentage of marks in Environmental studies for level I; which is quite insignificant. But 10% children of SC/ST contributed very considerably towards better performances in Environmental studies for level II.

1.3.10.5 NATURAL STUDIES FOR LEVEL II ONLY:

1.3.10.5.1 85% formal school children scored the high percentage of marks under the category of above average in Natural science for level II, which is remarkably significant and bears the testimony of

... 425/-

the great interest, inclination, aptitude and motivation of formal school children for natural science.

1.3.10.5.2 No child of SC/ST contributed towards poor performance; but 10% children of SC/ST contributed towards better performance in Natural Science, which indicates that the children of SC/ST have developed the desired competencies in Natural science.

CONCLUSION:

1.3.10.6 From the perusal of the comparative statement of the performances of formal school children in different subjects for level I and Level II it is quite evident that:

1.3.10.6.1 The standard of the scholastic achievement of formal school children in language Hindi and Mathematics for level I is quite superior to that of the formal school children in both the subjects for level II.

1.3.10.6.2 The performance of formal school children in Environmental studies for level II and Natural science is remarkably significant.

...426/-

1.3.11 The consolidated statement showing the comparison of performances of NFE children with formal school children of Government Gandhi School, Pisangan of the Block - Pisangan District Ajmer in terms of frequency of marks attached in the particular range of marks in the following subjects of level I:

i) Language Hindi

ii) Mathematics

iii) Environmental Studies

is given below:

Subjects	Formal school children Percentage of children scoring the marks		NFE children Percentage of children scoring the marks	
	Below average 0 to 10	Above average 10 to 30	Below average 0 to 10	Above average 10 to 30
Language Hindi for level I	83%	17%	50%	50%
Mathematics for level I	75%	25%	15%	85%
Environmental studies for level I	75%	25%	32%	68%

.....427/-

1.3.11.1 It is quite evident from the aforesaid comparative statement of the performances of formal school children and NFE children of the Block Pisangan District Ajmer.

1.3.11.1.1. That the standard of the performance of the formal school children in language Hindi for level I is miserably poor and is absolutely inferior to NFE children; though the NFE children could not achieve the remarkably significant standard in language Hindi for level I.

1.3.11.1.2 The performance of NFE children in Mathematics for level I is remarkably significant and its standard is far superior to that of formal school children.

1.3.11.1.3 The performance of formal school children in Mathematics for level I is miserably poor and is very inferior to that of NFE children.

1.3.11.1.4 The standard of performance of NFE children in Environmental studies is far superior to that of formal school children whose scholastic achievement is horribly poor in Environmental studies for level I.

.....428/-

1.3.11.1.5 On the whole the standard of the performance of NFE children in all the aforesaid subjects is far superior to that of formal school children and bears the testimony of the fact that NFE children have developed desired competencies in all the subjects at par with formal school children and have fulfilled one of the most important objectives of Non formal Education.

1.3.11.2 The consolidated statement showing the comparison of the performances of NFE children with formal school children ofthe Block Pisangan District Ajmer in terms of frequency of marks attained in the particular range of marks in the following subjects of level II is given below:

Subjects	Formal school children		NFE children	
	Percentage of children scoring the marks		Percentage of children scoring the marks	
	Below average 0 to 10	Above average 10 to 30	Below average 0 to 10	Above average 10 to 30
Language Hindi for level II	69%	31%	43%	57%
Mathematics for level II	85%	15%	61%	39%
Environmental studies for level II	46%	54%	33%	67%
Natural Science for level II	31%	69%	25%	75%

.....429/-

1.3.11.2.1 It is quite evident from the aforesaid comparative statement of the performances of NFE children and formal school children of the Block Pisangan District Ajmer that:

1.3.11.2.1.1 The standard of the performances of NFE children in Language Hindi for level II is far superior to that of formal school children; where performance is miserably poor; whereas the performance of NFE children in Language Hindi for level II is remarkably significant.

1.3.11.2.2 The performances of both the categories of children in Mathematics for level II are very poor; though the standard of the performances of NFE children is superior to that of formal school children.

1.3.11.2.3 The standard of performances of both the categories of children in Environmental studies for level II is significantly remarkable, though it is superior to that of the formal school children.

1.3.11.2.4 The performances of both the categories of children in Natural science for level II are very encouraging and remarkably significant. Though the

.....430

standard of the performances of the NFE children in Natural science for level II is superior to that of formal school children.

1.3.11.2.5 In brief the standard of performances of NFE children in all the aforesaid subjects is far superior to that of formal school children and bears the testimony of their desired competencies they have developed at par with formal school children .

1.3.12. The consolidated statement showing the comparison of the performances of formal school children of Government Primary school, Manpura ki Dhani with NFE children of the Block - Sri Nagar, District Ajmer in the subjects- Language Hindi, Mathematics and Environmental studies for level I.

Subjects	Formal school children		NFE children	
	Percentage of children scoring the marks		Percentage of children scoring the marks	
	Below average ranging from 0 to 10	Above average ranging from 10 to 30	Below average ranging from 0 to 10	Above average ranging from 10 to 30
Language Hindi for level I	58%	42%	84%	16%
Mathematics	42%	58%	47%	53%
Environmental studies	75%	25%	42%	58%

..........431

1.3.12.1 It is quite evident from the aforesaid comparative statement of the performances of Formal school children and NFE children in Language, Math and Environmental studies for level I that the standard of NFE children is inferior to Formal school children in Language Hindi for level I.

1.3.12.1.2 Although the formal school children also could not achieve the satisfactory standard in Language Hindi.

1.3.12.1.3 The performance of Formal school children is miserably poor in Environmental studies. Their standard of achievement is very inferior to that of the NFE children.

1.3.12.1.4 The NFE children have developed desired competencies at par with formal school children in the subjects Mathematics and Environmental studies for level I.

(B)

1.3.12.2 The consolidated statement showing the comparison of the performances of Formal school children with NFE children of the Block - Sri Nagar,

...432/-

District Ajmer in the subjects:-

i) Language Hindi

ii) Environmental studies

iii) Mathematics

iv) Natural science for level II

Subjects	Formal School children		NFE children	
	Percentage of children scoring the marks		Percentage of children scoring the marks	
	Below average ranging from 0 to 10	Above average ranging from 10 to 30	Below average ranging from 0 to 10	Above acerage ranging from 10 to 30
Language Hindi for level II	100%	NIL	40%	60%
Mathematics for level II	17%	83%	52%	48%
Environmental studies for level II	NIL	100%	19%	81%
Natural Science for level II	17%	83%	24%	76%

1.3.12.2.1 It is quite evident from the aforesaid comparative statement of performances of Formal school children and NFE children of the Block - Sri Nagar District Ajmer in Language Hindi,

....433/-

Mathematics, Environmental studies and Natural science for level II that the standard of scholastic achievement of NFE children is inferior to Formal school children in Mathematics for level II.

1.3.12.2.2 The NFE children have developed the desired competencies at par with formal school children in all other subjects- Language Hindi, Environmental studies and Natural science.

1.3.12.2.3 The standard of the scholastic achievement of formal school children in Language Hindi is miserably poor. No formal school child could score any mark under the category of above average ranging from 10 to 30. Whereas 60% NFE children scored the higher percentage of marks ranging from 10 to 30 in Language Hindi for level II.

1.3.13.1 The consolidated statement showing the comparison of the performances of NFE children with Formal school children of the Block - Chohtan District Barmer in terms of frequency of marks attained in a particular range of marks in the

.....434/-

following subjects of level I is given below:-

i) Language Hindi for level I

ii) Mathematics for level I

iii) Environmental studies for level I.

Subjects	Formal school children		NFE children	
	Percentage of children scoring the marks		Percentage of children scoring the marks	
	Below average 0 to 10	Above average 10 to 30	Below average 0 to 10	Above average 10 to 30
Language Hindi for level I	Nil	100%	15%	85%
Mathematics	Nil	100%	8%	92%
Environmental studies for level I	Nil	100%	14%	86%

1.3.13.1.1 It is quite evident from the aforesaid comparative statement of the performances of formal school children and NFE children of the Bloc Chohtan District Barmer.

1.3.13.1.2 That the cent percent formal school children have scored the high percentage of marks under the category of above average ranging between 10 to 30 in all the three subjects for level I, which is significantly remarkably.

1.3.13.1.3 More than 85% NFE children have scored the high percentage of marks under the category of above average ranging between 10 to 30 in all the aforesaid three subjects for level I, which is significantly remarkable.

1.3.13.1.4 The excellent performance of NFE children in all the three subjects bears the testimony of the fact that they have developed desired competencies at par with formal school children and have fulfilled one of the most important objectives of non-formal education.

1.3.13.1.5 The contribution of the children of SC/ST has been remarkably significant towards the better performance of the NFE children in all the three subjects.

1.3.13.1.6 But the contribution of SC/ST children is quite insignificant and negligible in case of the Formal School children.

1.3.13.1.7 No female child has any contribution in case of formal school children towards their performance.

....437/-

(B)

1.3.13.2 The consolidated statement showing the comparison of the performances of NFE children with formal school children of the Block Chohtan District Barmer in terms of frequency of marks attained in a particular range of marks in the following subjects for level II is given below:

i) Language - Hindi for level II

ii) Mathematics for level II

iii) Environmental studies for level II

iv) Natural Science for level II

Subjects	Formal school children		NFE children	
	Percentage of children scoring the marks		Percentage of children scoring the marks	
	Below average 0 to 10	Above average 10 to 30	Below average 0 to 10	Above average 10 to 30
Language Hindi for level II	NIL	100%	18%	82%
Mathematics for level II	20%	80%	21%	79%
Environmental studies for level II	NIL	100%	NIL	100%
Natural Science for level II	NIL	100%	3%	97%

...438/-

1.3.13.2.1 It is quite evident from the aforesaid comparative statement that:

1.3.13.2.2. 100% Formal school children have scored the high percentage of marks under the category of above average in language Hindi for level II ranging from 10 to 30; whereas 82% NFE children scored the same high percentage of marks.

1.3.13.2.3 The performances of the children of both the categories are significantly remarkably. But the standard of achievement of Formal school children is superior to that of NFE children in language Hindi for level II.

1.3.1332.4 The performances of the children of both the categories (Formal school as well as NFE) in the subjects - Mathematics, Environmental studies and Natural Science for level II are remarkbly significant and bear the testimony of the fact that the NFE children have developed the desired competencies in all the aforesaid four subjects at par with formal school children and fulfil one of the most important objectives of the NFE programme.

1.3.14.A. Comparative statement of the performances of Formal school children of Government Primary school, Shobhala and NFE children of the desert area of the block Dhorimanna District Barmer in Language Hindi, Mathematics and Environmental studies for level I.

Subjects for level I.	Formal school children				NFE children			
	Percentage of children scoring the marks under the category of				Percentage of children scoring the marks under the category of			
	Below average 0to 10		Above average 10 to 30		Below average 0 to 10		Above average 10 to 30	
	All communities	SC/ST	All communities	SC/ST	All communities	SC/ST	All communities	SC/ST
Language Hindi for level I	-	-	100%	NIL	1%	NIL	99%	21%
Maths level I	-	-	100%	NIL	-	-	100%	22%
Environmental studies level I	-	-	100%	NIL	-	-	100%	22%

1.3.14.B Comparative statement of the performances of Formal school children of Government School, Shobhala and NFE children of the desert area of the block Dhori Manna, district Barmer in Languge

......440/-

Hindi, Mathematics, Environmental studies and Natural Science for level II.

Subject for level II	Formal school children: Percentage of children scoring the marks under the category of				NFE children: Percentage of children scoring the marks under the category of			
	Below average 0 to 10		Above average 10 to 30		Below average 0 to 10		Above average 10 to 30	
	All communities	SC/ST	All communities	SC/ST	All communities	SC/ST	All communities	SC/ST
Language Hindi for level II	10%	NIL	90%	NIL	5%	Nil	95%	21%
Maths level II	10%	NIL	90%	NIL	3%	Nil	97%	20%
Environmental studies level II	10%	NIL	90%	NIL	-	-	100%	21%
Natural science level II	10%	NIL	90%	NIL	-	-	100%	19%

...441/-

1.3.14.C Comparison of the performance of formal school children of Government Primary school, Shobhala with that of the NFE children studying at the NFE Centres run by the Government agencies of the desert area of the Block - Dhori Manna of District Barmer in subjects of Language Hindi, Mathematics and Environmental studies for both the levels of I and II and Natural Science for level II.

1.3.14.D On the basis of the critical analysis and the comparative statements of the performances of formal school children and NFE children belonging to both the age groups of below 11 and above 11 years of the desert area of the block - Dhori Manna, District Barmer in terms of frequency of marks attained in a particular range of marks in Language Hindi, Mathematics, Environmental studies and Natural science for level I and level II, the following inferences are drawn:-

1.3.14.1 The outstanding performances in all the aforesaid subjects for level I and level II indicate that the children of both the categories i.e. NFE children and formal school children have developed

the desired competencies in all the subjects having aspirations for leading a better life on getting education under either of the systems of education at par their convenience.

1.3.14.2 The cent percent NFE children of SC/ST contributed towards better performances in all the subjects for level I and level II by scoring the marks under the category of above average ranging between 10 to 30, which bears the testimony of the fact that the standard of their scholastic achievement is significant remarkable and very encouraging.

1.3.14.3 No formal school child belongs to the weaker section of the society, i.e. SC/ST and females; which indicate that they are deprived of the facilities of formal schooling on account of their extreme poverty which compels them to be awfully busy with some productive pursuits during day hours to earn their living.

The girls also do not avail of the opportunities of formal schooling on account of being busy with either some domestic chores or some productive pursuits to earn livelihood. The social prejudices

.....443/-

against girls' education might have hampered their education.

1.3.14.4 The standard of scholastic achievement of NFE children in language Hindi for level I is slightly inferior to that of formal school children.

1.3.14.5 But it is remarkably superior to that of formal school children in all the subjects for level II.

1.3.14.6 On the whole the present empirical evaluation study reveals that the remarkable scholastic achievements of the NFE children bears the testimony of the fact that they have developed the desired competencies in all the subjects at par with formal school children fulfilling one of the important objectives of Non Formal Education.

1.3.13.15.A Comparative statement of the performances of the NFE children belonging to both the age groups of below 11 and above 11 years and studying at the NFE centres run by the Government Agencies and voluntary agencies in the subjects of Language Hindi, Mathematics, and Environmental studies for level I.

.....444/-

Different subjects for level I	NFE children of voluntary agencies				NFE children of Govt.			
	Percentage of children scoring the marks under the category				Percentage of children scoring the marks under the category			
	Below average 0 to 10		Above average 10 to 30		Below average 0 to 10		Above average 10 to 30	
	All communities	SC/ST	All communities	SC/ST	All communities	SC/ST	All communities	SC/ST
Language Hindi	75%	28%	25%	8%	36%	8%	64%	19%
Maths	29%	11%	71%	27%	17%	5%	83%	22%
Environmental studies	48%	23%	52%	14%	21%	6%	79%	20%

1.3.15.B Comparative statement of the performances of the NFE children belonging to both the age groups of below 11 and above 11 years and studying at the NFE centres run by the Government agencies and voluntary agencies in the subjects of language Hindi, Mathematics, Environmental studies and Natural Science for level II.

Different subjects for level II	NFE children of voluntary agencies: Percentage of children scoring the marks under the category				NFE children of Government agencies: Percentage of children scoring the marks under the category			
	Below average 0 to 10		Above average 10 to 30		Below average 0 to 10		Above average 10 to 30	
	All communities	SC/ST	All communities	SC/ST	All communities	SC/ST	All communities	SC/ST
Language Hindi	72%	19%	28%	14%	27%	6%	73%	22%
Maths	63%	23%	37%	10%	36%	8%	64%	17%
Environmental studies	44%	13%	56%	20%	15%	4%	85%	21%
Natural science	40%	11%	60%	22%	15%	5%	85%	20%

1.3.15.C Comparison of the performances of NFE children studying at NFE centres run by the Government agencies with that of the NFE children of voluntary agencies in Language Hindi, Mathematics and Environmental studies for level I.

On the basis of the aforesaid critical analysis and the comparative statement of the performances of NFE children studying at the NFE centres run by

the Government Agencies with those of voluntary Agencies the following inferences are drawn:-

1.3.15.1 Only 25% NFE children (Male and females) of all communities belonging to both the age groups and studying at the NFE centres run by the voluntary agencies scored the higher percentage of marks under the category of above average ranging between 10 and 30; whereas 64% NFE children studying at the centres run by the Government agencies scored under the same category. The ratio between them exists as 25:64; which indicates that the standard of scholastic achievements of the NFE children of voluntary agencies in language Hindi for level I is horribly poor and is very inferior to that of NFE children of Government agencies.

1.3.15.2 The study further reveals that 71% NFE children of voluntary agencies scored the higher percentage of marks under the category of above average ranging between 10 and 30 in Mathematics for level I; whereas 83% NFE children of Government Agencies scored the higher percentage of marks under

the same category. The ratio between them exists as 71:83; which also bears the testimony of the inferiority of the standard of scholastic achievements of NFE children of voluntary agencies in Mathematics for level I.

1.3.15.3 Again only 52% NFE children of voluntary agencies scored the higher percentage of marks under the category of above average ranging between 10 and 30; whereas 79% NFE children of Government Agencies scored the higher percentage of marks under the same category in Environmental studies for level I. The ratio between them exists as 52:79 or 5:8 approximately. Which indicates that the standard of scolastic achievement of NFE children of voluntary agencies is very inferior to that of Government agencies in Environmental studies for level I.

1.3.15.D Comparison of the performances of NFE children studying at the NFE centres run by the government agencies with that of the NFE children of voluntary agencies in Language, Mathematics, Environmental studies and Natural science for level II.

1.3.15.1 Only 28% NFE children (Male and females) of all communities belonging to both the Age groups of below 11 and above 11 years studying at the centres run by the voluntary agencies scored the higher percentage of marks under the category of above average ranging between 10 and 30; whereas 73% NFE children of Govt. Agencies scored the higher percentage of marks under the same category in Language Hindi for level II. The ratio between them exists as 28:73 or 1:3 approximately. Which indicates that the standard of the scholastic achievement of NFE children of voluntary agencies is miserably poor and very very inferior to that of the NFE children of Government Agencies in language Hindi for level II.

1.3.15.2 The study further reveals that only 37% NFE children of voluntary agencies scored the higher percentage of marks under the category of above average ranging between 10 and 30. In Mathematics for level II; whereas 64% NFE children of Government Agencies scored the higher percentage of marks under the same category. The ratio between them exists as 37:64 or 1:2 approximately; which bears the

testimony of the horrible inferiority of the standard of scholastic achievements in Mathematics II to that of the NFE children of Government Agencies.

1.3.15.3 Again only 56% NFE children of voluntary agencies scored the higher percentage of marks under the category of above average ranging between 10 and 30 in Environmental studies for level II, whereas 85% NFE children of Government Agencies scored the higher percentage of marks under the same category. The ratio between them exists as 56:85 or 3:5, which explicitly signifies that the standard of scholastic achievements of NFE children of voluntary agencies is miserably inferior to that of Government Agencies in Environmental studies for level II.

1.3.15.4 Lastly 60% NFE children of voluntary agencies scored the higher percentage of marks under the category of above average in Natural Science for level II ranging between 10 and 30; whereas 85% NFE children of Government Agencies scored the higher percentage of marks under the same category The ratio between them exists as 60:85 or 12:17;

...450/-

which bears the testimony of the horribly inferior standard of NFE children of voluntary agencies in Natural science for level II to that of Government Agencies in Natural science for level II.

CONCLUSION:

1.3.15.5 On the basis of the present empirical evaluation study of the academic aspects of NFE programme in Rajasthan it is quite evident that the standard of the scholastic achievements of the NFE children male and females of all the communities belonging to both the age groups of below 11 and above 11 years studying at the NFE centres run by the Government Agencies is far far superior to that of the NFE children studying at the NFE centres run by the voluntary agencies in all the subjects of level I and level II.

1.3.16.A Comparative statement of the performance of the formal school children of the four Government primary schools of the sample and NFE children belonging to both the age groups of below 11 and above 11 years and studying at the NFE centres run by the Government agencies in the subjects of Language Hindi, Maths. and Environmental studies for level I.

Different subjects for level I	Formal school children: Percentage of children scoring the marks under category — Below average 0 to 10: All communities	SC/ST	Above average 10 to 30: All communities	SC/ST	NFE children: Percentage of children scoring the marks under the category — Below average 0 to 10: All communities	SC/ST	Above average 10 to 30: All communities	SC/ST
Language Hindi	39%	NIL	61%	2%	36%	8%	64%	19%
Maths.	32%	NIL	68%	2%	17%	5%	83%	22%
Environmental studies	41%	NIL	59%	2%	21%	6%	79%	20%

1.3.16.B Comparative statement of the performances of the formal school children of four Government primary schools of the sample and the NFE children belonging to both the age groups of below 11 and above 11 years and studying at the NFE centres run by the Government agencies in the subjects of Language Hindi, Maths. Environmental studies and Natural science for level II.

Different subjects for level II	Formal school children: Percentage of children scoring the marks under the category Below average 0 to 10 — All communities	SC/ST	Above average 10 to 30 — All communities	SC/ST	NFE children: Percentage of children scoring the marks under the category Below average 0 to 10 — All communities	SC/ST	Above average 10 to 30 — All communities	SC/ST
Language Hindi	41%	8%	59%	2%	27%	6%	73%	22%
Maths.	38%	2%	62%	8%	36%	8%	64%	17%
Environmental studies	18%	NIL	82%	10%	15%	4%	85%	21%
Natural science	15%	NIL	85%	10%	15%	5%	85%	20%

.....453/-

children studying at NFE centres run by the Governme[nt]
agencies with that of the Formal school children in
Language (Hindi), Mathematics and Environmental Stu[dies]
for level I.

1.3.16.1 On the basis of the critical analysis and comparative statement of the performances of the NF[E] children studying at the NFE centres run by the Government agencies with that of the Formal Scho[ol] children the following inferences are drawn:-

1.3.16.1.1 64% NFE children of all communities (Male and female) scored the higher percentage of marks under the category of above average ranging between 10 [illegible] whereas 61% Formal school children studying in the formal Government primary schools scored the highe[r] percentage of Marks ranging between 10-30 in Lan[guage] Hindi for level I. The ratio between both of them exists [illegible] 64:61 which indicate that the standard [of] NFE children is superior to formal school children i[n] Language Hindi for level I.

10 to 30 in Mathematics for level I, whereas only 68% Formal school children scored the higher percentage of marks under above average. The ratio between them exists as 83:68 or 5:4 approximately; which bears the testimony of the superiority of standard of NFE children over formal school children in Mathematics for level I.

1.3.16.1.3 The study further reveals that 79% NFE children scored the higher percentage of marks under the category of above average ranging between 10 to 30; whereas only 59% formal school children scored the higher percentage of marks in Environmental studies for level I. The ratio between their performances exists as 79:59 or 4:3 approximately; which bears the testimony of the superiority of standard of NFE children over the scholastic achievement of formal school children.

1.3.16.1.4 On the whole the empirical Evaluation study reveals that the performances of the NFE children studying at the NFE centres run by Government agencies is far far better than that of the formal school children studying at the formal primary schools run by the Government in Language, Mathematics and

...455/-

Environmental Studies for level I.

1.3.16.2 Comparison of the performances of NFE children studying at NFE centres run by the Government agencies and that of the formal school children in Language (Hindi), Mathematics, Environmental studies and Natural science for level II.

1.3.16.2.1 On the basis of the critical analysis and comparative statement of the performances of NFE children studying at the NFE centres run by the Government Agencies and that of formal school children in Language (Hindi), Mathematics, Environmental studies and Natural science for level II the following inferences are drawn:-

1.3.16.2.2 73% NFE children of all the communities (Male and female) belonging to both the age groups of below 11 and above 11 years scored the higher percentage of marks under the category of above average ranging between 10 and 30 in Language Hindi for level II; whereas only 59% Formal school children of all communities and belonging to both the age groups scored the higher percentage of marks under the category of above average ranging between 10 and 30.

....456/-

The ratio between them exists as 75:59 or 5:4 approximately; which indicates that the standard of NFE children is far far superior to formal school children in Language Hindi for level II.

1.3.16.2.3 The study further reveals that 64% NFE children (male and females) of all the communities belonging to both the age groups scored the higher percentage of marks under the category of above average ranging between 10 and 30 in maths for level II; whereas 62% Formal school children (Male and females) of all the communities belonging to both the age groups scored the higher percentage of marks under the same category. The ratio between them exists as 64:62; which bears the testimony of the superiority of the standard of academic achievements of NFE child over formal school children.

1.3.16.2.4 In Environmental studies for level II 85% NFE children (male and females) of all the communities belonging to both the age groups (below 11 and above 11 years) scored the higher percentage of marks under the category of above average ranging between 10 and 30; whereas 82% formal school children (Male and females) of all communities scored the higher percentage of marks under the aforesaid category of

...457/-

above average. The ratio between both of them exists as 85:82; which indiates that the standard of scholastic achievements of NFE children studying at the NFE centres run by the Government agencies is better t that of the formal school children.

1.3.16.2.5 The study further reveals that 85% NFE children (Male and female) of all the communities belonging to both the age groups have scored the hither percentage of marks under the category of above average ranging between 10 and 30 in Natural science for level II. The formal school children (Male and females) of all communities and belonging to both the Age groups also scored the higher percentage of marks under the same category in the equal percentage, which bears the testimony of the equal standard of performances by the children of both the categories (NFE as well as formal school) in Natural science for level II.

CONCLUSION:

1.3.16.2.6 On the basis of the present Empirical Evaluation study it is quite evident that the standard of the scholastic achievements of the NFE children male and female of all communities and belonging to both the age groups (below 11 and above 11 years) is far far

better than that of formal school children in all the subjects Language Hindi, mathematics and Environmental studies for level I.

1.3.16.2.7 The study further reveals that the performances of NFE children are superior to in Language (Hindi) mathematics, Environmental studies for level II to formal school children, but in natural science the children of both the categories have maintained equal standard.

1.3.16.2.8 The remarkable scholastic achievements of NFE children bear the testimony of the fact that they have developed the desired competencies in all the subjects at par with formal school children fulfilling the objectives of Non-formal Education.

...459/-

CHAPTER -VI

NON FORMAL EDUCA TION AS VISUALIZED BY LEARNERS. PARENTS AND EMPLOYERS :

1.1 THE NON FORMAL EDUCA TION AS VISUALIZED BY LEARNERS:

1.1.1 The centrally sponsored experimental scheme of non formal education launched in the year 1979-80 has proved itself as a poweful alternative strategy to formal system of education to bring all the out of school children to educational fold. From the perusal of the preceding chapters it is quite evident that 27% NFE children Male and female belong to scheduled castes and scheduled tribes and 36% beneficiaries of the NFE programme are girls, which is q: quite encouraging and bears the testimony of the successful implementation of the NFE programme.

1.1.2 In order to obtain the impression of the NFE learners about the programme an interview schedule was developed and administered to Two NFE learners (One male and one female or both belonging to the same sex as the case might be) at each centre of the sample.

1.1.3 The present study reveals that 30% learners both male and female belong to scheduled castes and scheduled tribes and 33% learners of the sample belong to female section; which is quite significant.

The following table explains this :

TABLE NO.1

1.1.4 Distribution of learners on the basis of their age groups of less than 11 and more than 11 years and according to their classification of SC/ST/Male/Female/and others :

Characteristics	NFE Learners							
	SC/ST				Others			
	Male		/Female		Male		/Female	
	No.	%	No.	%	No.	%	No.	%
Age Less than 11 years	6	8	1	1	15	19	7	9
More than 11 years	10	13	6	8	23	29	12	15

Characteristics	NFE Learners							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
(1) AGE LESS THAN 11 YEARS								
(a) Period of stay for less than 1 year	-	-	-	-	-	-	-	-
(b) More than 1 year	6	8	1	1	15	19	7	9
(2) AGE MORE THAN 11 YEARS								
(a) Period of stay for less than 1 year	2	3	2	3	1	1	2	3
(b) More than 1 year	8	10	4	5	22	28	10	13

1.1.5 As regards the period of stay at the NFE centres the study reveals that 9% learners (both male and female) of SC/ST and belonging to the age group less than 11 years have been staying at the NFE centres for more than 1 year. No learner of this age group has been staying for less than one year; which is very encouraging.

1.1.5.1 The study further reveals that 15% learners of SC/ST (Male/Female) belonging to the age group of more than 11 years have been staying at the NFE centres for more than 1 year. This bears the testimony of the positive attitude of the NFE children of SC/ST towards NFE programme.

The following table explains this :

TABLE NO. 2

1.1.5.2 Distribution of learners on the basis of their age groups of less than 11 and more than 11 years and period of their stay at the NFE centres for less than 1 year and more than 1 year and accordin , to their classifications of SC/ST/Male/Female/and others.

--....463/-

1.1.6 MOTIVATION FOR ATTENDING THE NFE CENTRE :

1.1.6.1 The Non formal education programme provides facilities to the learners to get education and to improve the quality of life. It also lays stress upon developing the desired competencies at par with formal system of education. It also helps them to improve their socio-economic conditions by improving their present vocation or identifying some other vocation to augment the income of their family.

1.1.6.2 (The study reveals that cent-percent learners (Male and female) including 29% learners of SC/ST are highly motivated for getting education at the NFE centres. The congenial atmosphere of theNFE centre, theliking of the learners for their fellow students, the behaviour of the instructor, his teaching technique and efficiency in organising teaching learning activities at the NFE centre motivate the learners to maintain punctuality, regularity and continuity at the centre.

....464/-

1.1.7 THE IMPACT OF EDUCATION DEVELOPED AT NFE CENTRE ON THE LEARNERS :

1.1.7.1 In assisting parents in their vocation in performing day to day household work and in dealing with people, the impact of education obtained at the NFE centres is visualized from the learners attitude and behaviour. (The present study reveals that the education obtained at the NFE centres enables the learners to assist their parents in their vocation and to extend their active and fullest cooperation to them. The study further reveals that the education obtained at the NFE centres enables them to perform their house-hold work with efficiency and sincerety. The education brings desired improvement in the behavious of the learners. They become polite, subissive, respectful and social. The education inculcates the sense of true citizenship among children, which helps them in dealing with people more politely and courteously).

1.1.7.2 The present study reveals that the education obtained at the NFE centres inculcated the spirit of extending their cooperation and assistance to their parents in their vocation..22% learners boys and girls belonging to scheduled caste and scheduled tribes and 50% learners of other communities feel that their education has enabled them to assist their parents in their vocation.

1.1.7.3 The study forther reveals that 24% learners Male and female of SC/ST and 57% (Male and female) of other community have expressed their positive opinion about the impact of education in performing their day to day house-hold duties more efficiently and effectively.

1.1.7.4 The majority of learners i.e. 85% feel that the education obtained at the NFE centres has very insignificantly impact upon their activities in dealing with people.

....466/-

The following table explains this :

TABLE NO. 3

1.1.7.4.1 Distribution of learners on the basis of their opinion about the impact of education upon their personality tacts, behavioural modification, performance of house-hold duties and in dealing with people and according to their classifications of SC/ST/Male/Fmale/ and others.

Characteristics	NFE Learners							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Impact of education upto NFE learners								
Positive opinion								
1. In assisting their parents	12	15	5	7	28	35	12	15
2. In day to day house-hole duties	12	15	7	9	30	38	15	19
3. In dealing with people	6	8	2	3	2	3	2	3

...467/-

1.1.8 PROBLEMS FACED :

From the perusal of the preceding chapters of the study it is observed that during the course of curriculum transaction the Instructors possessing inadequate academic qualification upto middle standard face difficulty in solving the problems pertaining to Mathematics. It has also been observed that the inadequate and insufficient training imparted to them for six days' duration does not compensate their low academic qualification. Moreover, even after the completion of the training they do not feel they have developed competencies in teaching some difficult portions of Mathematics, consequently the learners also face two fold difficulties and problems in solving some problems pertaining to Mathematics. The present study reveals that 30% learners have very boldly expressed their deep concern about the problems and difficulties they face in solving the sums of Mathematics. 50% of learners expressed their opinion in negative.

...468/-

1.1.9 INTERESTING FEATURE OF THE NFE PROGRAMME :

The Interesting feature of the programme is that 100% learners express their positive views for continuing their education at the NFE centre. This indicates the success of the programme and bears the testimony of the efficiency of the instructor and his way of teaching and tactfulness in dealing with the learners. His ways of organisation of teaching learning activities at the NFE centre, his methods of teaching and above all his personal rapport with children make the atmosphere of the NFE centre very congenial, charming and attractive. His involvement in the programme, his sincerety and efficiency in teaching make the teaching learning very interesting, consequently 100% learners like to continue studying at the NFE centre. The retention of children at the NFE centre bears the testimony of the successful implementation of the NFE programme.

...469/-

1.1.10 ASPIRATION OF THE LEARNERS AND THEIR EXPECTATION : CONTINUE STUDIES IN FORMAL SCHOOLS :

As regards the aspirations of the children after havin completed the entire course prescribed for primary level of NFE programme, the present study reveals that 63% learners of all communities have expressed their keen desire to continue their education by joining the formal stream of education. This bears the testimony of the successful implementation of the NFE programme. According to the objectives of the NFE programme the competencies of the learners are developed at par with to formal education and enable them to have multiple entry at their choice.

According to the information received from the Join Director of Non Formal Education, Rajasthan. 3576 students of NFE centres appeard at the Annual examination of primary schools in 1982-83 organised by the District Education Officers. Out of them 2732 were declared successful with 76% pass percentage. Similarly 4700 students appeared in the year 1983-84 and 2615 passed with 55% pass percentage.

....470/-

This bears the testimony of the availability of the facilities provided to theNFE learners for continuin their further education by joining the formal stream.

1.1.10.2 TO JOIN PA RENTS VOCATION TO EARN LIVELIHOOD :

1.1.10.2.1 The study further reveals that 50% learners have expressed their desire to accept parents vocation to earn their livelihood after completion of the course at the NFE centre.

The following table explains this :

TABLE NO. 4

1.1.10.2.2 Distribution of learners of both the age groups of less than 11 and more than 11 years on the basis of their desire after completion of courses at the NFE centres and according to their classification of SC/ST/Male/Female/ and others.

Characteristics	NFE learners							
	SC/ST				Other			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Aim of learners after completion of cour es								
i) To continue studies in formal school	10	13	3	4	29	37	8	10
ii) To join parents vocation or any other to earn livelihood	11	17	4	5	18	23	7	9

1.1.11 INTEREST AND MOTIVATION :

1.1.11.1 FELLOW LEARNERS :

Another factors responsible f r motivating the learners are th. fellow learners and peers who encourage each other to maintain punctuality, regularity and continuty at the NFE centre.

....472/-

The present study reveals that 47% learners (Male and female) have great likings for their fellow learners on account of their constant company they enjoy inside and outside of the NFE centre, while reading and writing and participating the games and sports and other recreational activities. Virtually the fellow learners are the source of motivation of the learners in developing deasired competencies in all the subjects taught at the NFE centres.

1.1.11.2 THINGS LEARNT AT THE NFE CENTRE :

Another bery interesting and motivating factors which create great likings and serve the purpose of allurement for the NFE centre are the things learnt there. The present reveals that 40% learners maintain punctuality, regularity and continuity at the NFE centres on account of their great likings for them.

1.1.11.3 THE TEACHER :

It has already been stated in the preceding chapters that the characteristic personality of the teachers (Instructors) their academic

and professional qualification, command over the contents, their ways of organising Instructional programme and teaching learning activities and above all their behaviour and treatment and their positive attitude towards the learners are some of the most important factors which are responsible continue their studies at the NFE centre. The present study reveals that 70% learners attend the NFE centres regularly on account of the aforesaid qualities of the teachers/instructors working at the NFE centres.

1.1.11.4 THE WAY THE TEACHER TEACHES :

The study further reveals that 60% learners have expressed their feelings of gratitudes for the teachers for their ways of teaching various subjects adopting the methods and techniques according to their suitability for their life situations and motivate them to maintain retention upto the completion of the entire prescribed course.

The following table explains this:

TABLE NO. 5

Distribution of learners on the basis of their likings for various motivating factors and according to their classifications of SC/ST/Male/Female and others.

Characteristics	NFE learners							
	SC/ST				Others			
	Male		/ Female		Male		/Female	
	No.	%	No.	%	No.	%	No.	%
Reasons for attending NFE centres :								
i) Fellow learners	8	10	2	3	19	24	8	1[illegible]
ii) Things Learnt there	6	8	3	4	16	20	6	8
iii) The teacher	12	15	5	6	25	31	13	17
iv) The way the teacher teaches	10	13	5	6	24	30	9	11

1.1.12 BENEFITS DERIVED FROM THE NFE CENTRES BY THE LEARNERS

1.1.12.1 SKILL IN READING AND WRITING :

From the perusal of the preceding chapter it is quite evident that the performances of NFE children in all the subjects of Language Hindi, Mathematics, Environmental studies and natural science have been significantly remarkable and that they have developed the desired competencies at par with formal school children.

Substantiating the aforesaid findings the present study reveals that 97% learners of the sample have expressed their positive attitude towards their scholastic achievements and academic competencies developed at the NFE centres specially in language stating that they have developed the skill to read correctly, accurately, exactly with desired speed and comprhenension. Moreover, they can express verbally as well as through written statements.

1.1.12.2 SKILL IN CALCULATION:

The study further reveals that 67% learners have expressed their positive opinion regarding the competencies they have developed in numeracy, specially in calculations to solve the problems of their life situations.

1.1.12.3 SKILL IN SOCIA LLY USEFUL PRODUCTIVE WORK (SEUPW) TO MAKE TOYS :

In order to help the learners to improve their socio economic conditions through their present vocation or in identifying some other vocation to augment the work (SUPW) should be taught at the NFE centres suiting to the Geographicaphical and social conditions and availability of the raw materials together with the saleability of the finished products. Toy making is one of the activities under SUPW to develop their attitude for creativity, productivity of socially usefulness. But the present study reveals that only 24% learners have expressed their positive attituds towards SUPW.

....477/-

1.1.12.4 SKILL DEVELOPED IN PLAYING DIFFERENT GAMES :

It has already been mentioned in the preceding chapters that besides the successful organisation of Instructional programme and teaching learning activities. The recreational activities are also organised to develop physical skill of the learners and to create an interest towards NFE centre and to motivate them to maintain retention till the whole course prescribed for primary level is covered. The present study reveals that 36% learners have expressed their positive attitude towards the skill in playing different games organised by the Instructors at the NFE centre.

1.1.13 EXPECTATIONS OF THE LEARNERS FROM THE NFE CENTRE :

1.1.13.1 From the perusal of the preceding pages it is quite evident that the Instructional programme followed at the NFE centres mainly pertains to literacy and numeracy. The curriculum pursued at the NFE centre does not meet the needs of the children and is not of any help

to their psychological and mental growth. Very little emphasis is laid upon the vocational training. The present study further reveals that 52% learners have expressed their keen desire for making necessary arrangements of some sort of vocational training during the course of their studies to enable them to earn their livelihood after covering the entire course prescribed for the primary level. 25% female learners of the sample have expressed their expectations for imparting training to them in Tailoring, dress designing, knitting and in embroidery to enable them to augment the income of their family.

1.1.13.2 The study further reveals that 43% learners of the sample have expressed their keen desire for providing education having relevance with their life situation. In their opinion there exists a wide gap between the concept and objectives of non formal education as a functional programme oriented for the improvement

....479/-

of the life of the learners and actual transaction of the programme in the field. They further maintain that the programmes are rarely characterised by relevance, flexi'ility and variety and they expect that present curriculum(used at NFE centre) should be revised, modified and reframed suiting to the needs a nd life situatiions of the learners. They have further desired that the Instructional programme should be organised to develop the desired competencies in various subjects of the learners to enable them to lead better life.

1.2 IMPACT OF NON FORMAL EDUCATION AS VISUALIZED BY PARENTS:

1.2.1 It is an admitted fact that the family back ground of the parents, their socio Economic status and their education has a great impact upon the education of their children. The poverty striken, socially and economically backward and above all quite illiterate parents never try to send their children to formal or non formal education centre to get education until and unless they are highly motivated. They engage them in the productive pursuits or some house-hold chores. Due to social backwardness they never think about theeducation of their girls. The situation is all the more grim among the aforesaid class of people residing in the hilly, desert, tribal and slum a reas where the facilities for educating their children are not available.

1.2.1.1 In order to get the opinion about the impact of non formal education programme upon their children as visualized by them two parents male or female from each of the forty NFE centres of the sample blocks were

were interviewed. OUt of that total of such population (parents) 91% were males, 32% male and females belong to SC/ST, only 32% are literates and rest quite illiterates.

1.2.1.2 As regards the vocation of the aforesaid parents the study reveals that 83% are Agriculturalists, 10% belong to labour class people and rest earn their living through various occupations such as carpentry, small scale industry, Government service etc.

1.2.1.3 The study further reveals that 58% parents belong to thecategory of very poor income group, 34% belong to averabe and the rest have the income of above average. Out of the category of extremely po r income group 24% belomg to scheduled castes, scheduled tribes and other weaker sections of the society.

The following table explains this:

TABLE NO. 6

Distribution of parents on the basis of their literacy and income and according to their classifications of SC/ST/Male/Female and others.

Characteristics	Parents							
	SC/ST				Others			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
(A) LITERACY:								
(a) Literate	5	6	-	-	21	26	-	-
(b) Illiterate	18	23	2	3	29	36	5	6
(B) INCOME								
(a) Poor	17	21	2	3	27	34	1	1
(b) Average	6	8	-	-	20	25	1	1
(c) Above Average	-	-	-	-	6	8	2	3

1.2.1.5 The study further reveals that most of the aforesaid parents keep their children so much awfully busy with some productive pursuits that they get no times to join any formal formal school to get education. Such depriveds of formal school children need the facilities of education suiting to their needs and life situations.

Having flexibility in respect of timings etc. the non formal education programme can afford the facility of education and can cater to their needs.

1.2.2 MOTIVATION OF PARENTS FOR SENDING THEIR CHILDREN TO NFE CENTRES TO GET EDUCATION:

1.2.2.1 From the persual of the preceding chapters it is quite evident that the developmental agencies, Administrative quthorities including centre instructors, supervisors, A.P.O.s.. Block Development Officers and community leaders can play a very important role in motivating the parents to send their children to NFE centres located in their vicinity and to avail of the facilities provided their for getting education suiting to their needs and life situations of their children.

1.2.2.2 The present study reveals that 88% parents were motivated by the NFE centre Instructors to send their children to the NFE centres to get education. The personal contact of the Instructors with parents and their personal and incessant persuation encourages the parents to inspire of getting education among their children.

1.2.2.3 9% parents when interogated expressed that the block Developmental Officer motivated them to send their children to NFE centres.

1.2.2.4 23% parents expressed their opinion regarding the personal pursuation of the learners of the NFE centres who motivated them to send their children to NFE centres, virtually, the learners who are highly impressed and motivate with the congenial atmosphere of the NFE centre, attractive and pleasant behaviour of the teacher/Instructors towards children and above all the teaching techniques, organisation of Teaching learning activities and Instructional programme impress the learners so much so that they motivate their playmates and peers to attend the NFE centre by per suading their parents.

1.2.2.5 8% parents are of the opinion that they themselves were highly impressed with the NFE centre and felt motivated to send their children to NFE centres to get education.

The following table explains this:

TABLE NO. 7

1.2.2.6 Distribution of parents on the basis of the motivation inspired by centre Instructors, block Development officer, learners of NFE centre etc. to end their children to NFE centre to get education and according to their classifications of SC/ST and others :

Characteristics Motivating factos	Parents SC/S T Male No.	 /Female %	 Others Male No.	 /Female %
1. TEACHER :				
literate	3	4	20	25
illiterate	17	22	30	38
2. B.D.O.	-	-	4	5
Illiterate	1	2	2	3
3. Learners				
Literate	1	2	6	8
Illiterate	5	7	6	8

.....486/-

4. NFE Centre				
Literate	-	-	2	3
Illiterate	-	-	-	-
5. ANY OTHER				
literate	2	3	1	2
Illiterate	2	3	1	2

1.2.3 GENERAL IMPRESSION OF PARENTS REGARDING THE BEHAVIOURAL CH[illegible] ETC.

1.2.3.1 Besides developing competencies in the learners in various subjects, the education modifies their behavious, brings great changes in the pattern of living, develops habits for maintaining sound physique by observing principles of health and hygiene. The parents of the learners have been highly impressed to observe the great changes in the behaviour of their wards. The present study reveals that 58% parents were immensely impressed to observe the great changes in the habits of their wards from the hygienic

....487/-

point of view particularly to observe that their wards have developed very good habits of washing hands before meals.

1.2.3.2 The study further reveals that 90% parents have expressed their delightedness to observe that their wards have started taking their baths and washing their clothes daily which is all due to the impact of education the children get at the NFE centre.

1.2.3.3 74% parents felt that the impact of education is observed in the attitudenal behaviour of their children, through education the learners have developed very good habits for cleaning teeth daily.

1.2.3.4 45% parents have expressed their opinion about the impact of education observed through the good habits developed in taking food neatly. The following table explains the impression of the parents pertaining to the impact of education they have observed through the modification of behaviour, development of good habits for health and hygiene.

.....488/-

TABLE NO. 8

1.2.3.5 Distribution of parents on the basis of their observations of the behavioural changes of NFE learners in respect of Health and Hygiene etc. and according to their classifications of SC/ST/Male/Female and others :

Characteristics Changes in the pattern of living observed	Parents SC/ST Male / Female No.	 %	 Others Male / Female No.	 %
1. WASHES HANDS BEFORE MEALS:				
i) Literate	3	4	8	10
ii) Illiterate	12	15	23	29
2. WASHES CLOTHES AND BATHS DAILY				
i) Literate	6	8	22	28
ii) Illiterate	17	22	27	34
3. CLEANS TEETH DAILY:				
i) Literate	5	7	15	19
ii) Illiterate	16	20	23	29

4. TAKES FOOD NEATLY

i) Literate	2	3	9	12
ii) Illiterate	8	10	17	22

1.2.4 ACADEMIC ACHIEVEMENTS AND SOCIO ATTITUDINAL ASPECTS OF THE LEARNERS AS VISUALIZED BY PARENTS :

1.2.4.1 As regards the impression of the parents for the academic achievements of their children the present study reveals that 100% parents feel great pleasure to observe their children reading books and writing letters and sometimes maintaining the accounts of the Income and expenditure of their families. Virtually the parents, with the academic achievements of their children while attending the NFE centres and motivate them to continue maintaining regularity and continuity in attending the NFE centres to develop the desired competencies at par with formal education and encourage them to prosecute their further studies by joining someformal school at multiple entry according to their competenc ies after completing the course prescribed for Primary level.

..490/-

1.2.5 SOCIO ATTITUDINAL ASPECTS OF LEARNERS AS VISUALIZED BY PARENTS :

1.2.5.1 THE WAYS THROUGH WHICH THE EDUCATION OF LEARNERS HELP THEIR FAMILIES :

1.2.5.1.1 The impact of education obtained at the NFE centre is observed from the attitudinal behaviour of the learners, who extend their cooperation to their families by participating actively in the vocation of their parents to augment the income of the family, maintain accounts of the day to day income and expenditure of the family. They extend their wholehearted cooperation to their parents in the development and progress of their vocation and help them in making correspondence and through writing letter with the people outside. Some children after having the competencies and under standing moreover, such educated children help their younger brothers and sister in reading and writing and assist them to get sufficient knowledge of the subjects they have already learnt. Some matured children start sharing the responsibility of household affairs.

1.2.5.1.2 The present study reveals that 40% parents feel great pleasure to observe that their children have begun extending their hearties cooperation to them in maintaining accounts of the Income and expenditure of their families.

1.2.5.1.3 The study further reveals that 55% parents are highly satisfied to observe that their children help them in writing letters and making correspondence with the people whenever asked for.

1.2.5.1.4 According to 13% parents their grown up and matured children represent their family outside.

1.2.5.1.5 Moreover, 55% parents feel highly satisfied with their children to observe the impact of the education, when they find them halping their younger brothers and sisters to read and write and to solve the problems experienced by them while learning at the NFE centres.

1.2.3.1.6 The study further reveals that 42% parents feel that their matured children on getting education at the NFE centre, have started shouldering the responsibility of the household affairs. The following table explains this :

TABLE NO. 9

1.2.5.1.7 Distribution of parents on the basis of the impace of education observed through various activities and attitudinal behaviour of the children and according to their classifications of SC/ST/Male/Female and others.

Characteristics	Parents SC/ST Male No.	SC/ST Female %	Others Male No.	Others Female %
Whether the education of the children help their family in any way.				
1. IN KEEPING ACCOUNTS				
a) Literate	2	3	8	10
b) Illiterate	8	10	14	18
2. HELPING THE PARENTS IN WRITING LETTERS AND MAKING CORRESPONDENCE:				
a) Literate	1	2	11	14
b) Illiterate	13	17	19	24

3. REPRESENTING THE FAMILY OUTSIDE				
a) Literate	1	2	3	3
b) Illiterate	1	2	6	8
4. HELPING BROTHERS AND SISTERS TO READ AND WRITE				
a) Literate	2	3	10	13
b) Illiterate	11	14	21	27
5. SHARING HOME RESPONSIBILITY				
a) Literate	3	4	9	12
b) Illiteate	7	9	14	18

1.2.5.2 THE IMPACT OF EDUCATION AS VISUALIZED BY THE PARENTS THROUGH THE ACTIVITIES OF THE CHILDREN REFLECTED ON THEIR MANNERS AND BEHAVIOUR IN THE SOCIETY:

1.2.5.2.1 The present study reveals that th education obtained at the NFE centres has immensely modified the behaviour and has great impact upon the manners of the learners. According to the opinion of 50% parents the learners can express than

before. They have learnt etiquette and manners. The education has regulated their daily routine 48% parents have observed the learners leading a very impressive and regulated life.

1.2.5.2.2 The study further reveals that according to the observation of 69% parents the children have developed their attitude to proceeute their higher studies after having covered the entire course prescribed for primary level. The present education has motivated them for getting higher education to develop their personality and to become some important person in their futuer life.

1.2.5.2.3 As regards participation of learners in family decision making the study reveals that very few parents (onl y4%) feel that the education obtained at the centre has v ry in significant effect upon learners as regards the participation in the family decision. The majority of the parents do not find them capable enough for the same.

1.2.5.2.4 The study further reveals that according to the opinion of 37% parents the children on getting education

at the NFE centres have modified their behaviour. They behave with the children of their peers group in befitting manner.

1.2.5.2.5 Moreover, about 40% parents have observed that the children have developed the tactfulness and good manners in dealing with their neighbours properly, politely and with etiquette.

1.2.5.2.6 The study further reveals that according to 37% parents the children have developed very refined behaviour in dealin with the visitors.
The table showing the impact of education as reflected on the manners and behaviour of the learners. is given below:

TABLE NO. 10

1.2.5.2.7 Distribution of parents on the basis of their impressions pertaining to the socio-attitudinal aspects of the behavious of the learners and according to their classification of SC/ST/Male/Female/ and others.

...496/-

Characteristics	Parents			
	SC/ST		Others	
	Male / Female		Male / Female	
	No.	%	No.	%
(a) Able to express himself better	15	19	24	30
(b) More regulated in his daily routine	11	14	27	34
(c) Participates in family decision making	2	3	1	2
(d) wants to read more	15	19	50	50
(e) wants to be an important person	6	8	13	1 7
(f) Has developed very good behaviour for peer's group	6	8	23	29

...497/-

(g) Has developed good behaviour with neithbours & visitors	6	8	23	29

1.2.6 PREFERENCE FOR FORMAL OR NON FORMAL EDUCATION AS REFLECTED IN THE CHOICE OF PARENTS IN SENDING THEIR WARDS TO FORMAL SCHOOLS AND NFE CENTRES :

1.2.6.1 As regards the choice of parents for sending their children to formal schools or NFE centres the study reveals that due to unfavourable circumstance and socio economic conditions 88% parents preferred NFE centres and sent their children to get education during evening hours. The children assist their parents in their vocation during day hours. The study further reveals that only 12% parents admitted their wards to formal schools but had to withdraw them from there to join NFE centres to get education during evening hours and to help them (parents) in their respective vocations. Out of the aforesaid 12% parents 3% parents withdrew their female wards from formal schools on account of their extreme poverty and share the home responsibility and keep them busy in domestic chores.

....498/-

TABLE NO.11

Distribution of parents on the basis of reasons for with drawing their children from regular formal schools and accord ing to their classifications of SC/ST/ Male/Female and others.

Characteristics	Parents			
	SC/ST		Others	
	Male No.	/ Female %	Male No.	/Female %
i) To help parents in their vocation	1	2 2	7	9
ii) To share the responsibility of house-hold affairs	1	2	-	-

1.2.7 SUGGESTIONS OF PARENTS FOR IMPROVEMENT OF NFE CENTRES:

1.2.7.1 From the perusal of the preceding chapter it is quite evident that the parents are quite aware of the functioning of the NFE centres. Generally enlightened

and literate parents have their involvement in the NFE programme and extend their active cooperation to the Instructors and supervisors when approached in the development of physical facilities at he NFE centre such as construction of thatched huts for NFE centres, water facilities for children etc. Many of such literate parents have expressed their unpleasantness on the non-cooperation of administrative authorities in the smooth functioning of the NFE centres. Majority of such enlightned parents have expressed their utter dissatisfaction for the untimely supply of Instructional material; text books, slates, pencils, Ex. books, and the supply of slates of quite inferior quality which give way within a very short time. Theparents have expressed their feelings of distress to find in sufficient lighting arrangement inhealthy and uncogenial atmoshphere at the NFE centres. When interrogated parents have expressed their following suggestions for improvement of the NFE centres as well as for the successful implementation of the NFE programme.

....500/-

1.2.7.2.1 INCENTIVE TO CHILDREN:

1.2.7.1.2 The present study reveals that 85% parents have suggested that the incentives in the form of midday meals to all children free uniform to poors should be given. The study further reveals that 60% parents of the sample belong to the poverty striken and weaker section of the society who face d ifficulties and hardships even to meet both the ends totother. Consequently they find themselves quite unable to send their children to get education to any formal school during day hours and keep them engaged in some productive pursuits such parents can not afford to cover their children with clothes of minimum requirement. Free uniform must necessarily be supplied to such children. According to 85% parents the supply of midday meals to all children would prove as an incentive to ill-fed children and would motivate them to maintain regularity.

1.2.7.1.3 The study further reveals that the parents of the sample have suggested that prizes should be awarded to the children for their outstanding and excelent performance in

the studies.

1.2.7.1.4 The parents have further suggested that like the formal school children the provision for scholarships to scheduled castes, scheduled tribes and children belonging to weaker section of the society and poverty striken families and female children of all communities should be made. This would undoubtedly encourage all out of school children to join NFE centres.

1.2.7.2 REMUNERATION TO INSTRUCTORS :

1.2.7.2.1 The study further reveals that 45% parents have suggested to increase the remuneration of instructors from Rs. 105/- p.m. to Rs. 300/- p.m. to encourage them to perform their duties wholeheartedly with zeal, enthusiasm, sincerety and devotion and with full involvement in the NFE programme.

1.2.7.3 ADEQUATE LIGHTING ARRANGEMENTS AT THE NFE CENTRES:

1.2.7.3.1 The study further reveals that 22% parents have suggested for making adequate lighting arrangement at the NFE centre.

1.2.7.3.2 Wherever the facility of electric light is available the efforts should be made for its regular and timely supply.

1.2.7.4 ACCOMODATION FOR NFE CENTRE:

1.2.7.4.1 The study further reveals that according to 20% parents the adequate arrangement for providing sufficient accommodation for the NFE centres be made. The community involvement is very essential for the selection of the NFE centres, its location, for adequate accommodation and construction of shade for the safety and security during rains and winter with proper arrangement of toilet and water supply. The parents have further suggested that in the desert area, arrangement for pacca construction of the accommodation is necessary, so that the children may not suffer during rains and winter and may continue studies comfortably.

1.2.7.5 GAMES MATERIAL :

1.2.7.5.1 20% parents have suggested that proper arrangement for playing regular games and sports at the NFE centre is very necessary for providing recreation to children and for their physical developments. Moreover, the effective organisation of co-curricular activities including games and sports will motivate children in attending NFE centre regularly and continuously.

...503/-

1.2.7.6 The study further reveals that 40% parents have given their suggestion for the following for the successful functioning of the NFE centres :

1.2.7.6.1 TIMELY SUPPLY OF INSTRUCTIONAL MATERIAL :

1.2.7.6.1.1 For the successful implementation of the centrally sponsored experimental NFE programme the free supply of the Instructional materials like slates, pencils, Ex. Books, Txt Books etc. to all children is made. But the present study reveals that supply of the aforesaid Instructional material is very much delayed. Moreover the slates supplied by the block development officers of the blocks are of very short time and children are deprived of the studies due to lack of aforesaid material,. Hence, adequate arrangements should be made fo the timely supply of instructional material of very good quality.

1.2.7.6.1.2 The parents further suggest that the supply of the following teaching materials evalution devices should be made to the NFE Instructors in time.

(i) Curriculum

(ii) Training manual

(iii) Teachers Guide

(IV) Book on Unitwise teasts

(v) An Introduction to NFE

(Vi) All Text Books prescribed for Primary level.

1.2.7.6.1.3 They suggested that the teachers hand book should be devised and made available for the guidance of the NFE Instructors. Mor over, the teaching Aids-maps, charts, models and other self learning devices and other Audio Visual Aids etc., should also be supplied to NFE centres for the effective use of teachers and learners.

1.2.7.7 <u>ARRANGEMENT FOR TEACHING SOME USEFUL CRAFTS</u>:

1.2.7.7.1 The parents have further suggested that adequate arrangement for teaching some useful crafts suiting to the needs and life situations of learners and availability of raw material together with the adequate saleability of the finished products be made at the NFE centres to prepare the children capable to assist the parents in their vocation skilfully and to find out some other vocation to augment the income of their family.

1.2.7.8 <u>EFFECTIVE AND FREQUENT SUPERVISION</u>:

1.2.7.8.1 The study further reveals that 40% parents have suggested for the frequent and effective supervision of the NFE centres by the supervisiors to provide a dequate academic and pedagogical guidanc in respect of the teaching techniques and efficient and effective organisation of the teaching-learning activities, periodical evaluation of the scholastic achievements and competencies developed by the learners, their diagonestic testing and remedial teaching, proper maintanance of the records and guidance for the submission of periodical reports. The parents have suggested that the supervisors should be directed to visit each NFE

centres centres at least twice a month for which the norms for his supervision should be modified and instead of 50 NFE centres only 20. 25 NFE centres should be allotted to him. The supervisors should be provided with adequate transport facilities they should not be overloaded with any other developmental activities.

1.2.7.9 The parents have further suggested that the selection of the Instructors should be made fair and impartial and sincere and dedicated local persons, should be appointed as Instructors at the NFE centres.

1.2.7.10 EFFECTIVE COOPERATION OF ADMINISTRATIVE AUTHORITIES AND OTHER DEVELOPMENTAL AGENCIES:

1.2.7.10.1 The parents have further suggested that the Administrative authorities right from supervisors to Joint Director of Non formal Education should extend their active and sincere cooperation for the successful implementation of NFE programme in the block and through out the State. They should make frequent periodical and adequate guidance for their successful functioning

1.2.7.10.2 Other developmental agencies of the block and the District should extend their active cooperation for the efficient and effective functioning of the NFE centres.

1.2.7.10.3 For the involvement of the community the parents have suggested that right from the selection of the location of NFE centres in the block, providing adequate accommodation for the NFE centres, survey of Non enrolled out of school children and their admission to the NFE centres and intal

....506/-

maintaining the punctuality, regularity, continuity and retention upto the completion of the entire course, the local community and should be involved and their active co-operation should be sought for. The effective involvement of the community would lead to the successful implementation of the NFE programme.

1.2.7.11 WIDE PUBLICITY OF THE NFE PROGRAMME:

1.2.7.11.1 The study further reveals that 40% parents have suggested that wide publicity of the NFE programme should be made and all people residing even at the remotest corner of the rural, tribal hilly, desert and slum areas should be made aware of the facilities being provided for educating the children through this NFE programme, so that all deprived and out of school children may be benefitted by this programme.

1.2.7.12 CERTIFICATION:

1.2.7.12.1 The study further reveals that according to 40% parents adequate arrangements should be made for the evaluation of the academic achievements of the children of NFE centres. They have further suggested that the District Education Officer of the District of the District concerned should arrange for the final examination of all NFE children alongwith the formal school children at the District level and certificates should be issued to the successful children for their effective use.

The following table explains this :

TABLE NO112

1.2.7.12.2 Distribution of parents on the basis of their suggestions for the improvement of NFE programme and

according to their classifications of SC/ST/Male/FEmale and others :

Characteristics	Parents SC/ST Male/ Female Literate & Illiterate No.	%	Others Male / Female Literate & Illiterate No.	%
1. Incentives to NFE children in the form of midday meals, free uniform, scholarships, prizes etc.	26	32	42	53
2. Remuneration of NFE centre Instructors from Rs. 105/-p.m. to Rs. 300/- p.m.	9	12	27	34
3. Adequate lighting arrangement at NFE centres	3	4	14	18
4. Proper accommodation for NFE centres	4	5	11	13
5. Supply of games material and organisation of recreational activities	1	2	12	15
6. Any other	12	15	31	39

...508/-

1.3 IMPACT OF EDUCATION UPON THE LEARNERS OF NFE CENTRES AS VISUALIZED BY THE EMPLOYERS:

1.3.1 From the perusal of the preceding chapters it is quite evident that the education obtained at the NFE centre has great impact upon the social and attitudinal behaviour of the learners. It inculcates the spirit of sincerety, dutifulness and develops efficiency in the performance of duties assigned to them. In order to get the opinion about the impact of Non Formal Education programme upon their employees (learners of NFE centres) as visualized by their employers the interview scheduled was developed. In accordance with the criteria laid down for the selection of the employers for Interview survey two employers par block ought to have been selected on random basis. But actually one employer from each of the two blocks. Pisangan and sri Nagar of District Ajmer was available. No employer was available from the other two blocks of the sample, because no learner of the aforesaid two blocks works with any employer.

1.3.2 BACK GROUND OF THE EMPLOYERS:

1.3.2.1 As regards the background of the employers, the present study reveals that all of them belong to other cumm-unities, none falls under the category of the weaker sections of the society i.e. Scheduled caste/Scheduled tribes. All males, no employer belongs to female sex. The study is silent about their age. Moreover, no informationabout their Income is available from the data collected through the Interview schedules. The study is silent about their qualification.

....509/-

3.2.2 As regards the main occupation of the employers the study fevels that they fall under the category of any other occupation. One of them is a contractor, who earns his living through the main occupation of getting contracts for the construction of buildings private as well as public. The main occupation of other 50% employer is to work as manager of the Milk Producing cooperative Society and to arrange the supply of mild to the D istrict Head quarters.

.3.3 NATURE OF WORK ASSIGNED TO THE LEARNERS:

.3.3.1 As regards the natuer of work assigned to the learners (Employees) the present study reveals that 100% employees (learners) have been employed in the vocations falling under the category of any other. 50% employee of the sample has been employed as a labour named as Beldar to perform the duties of a helper to the mason who actually supplies construction material such as bricks cement etc. to the mason for masonary work i.e. actual construction of some building. As regards the work assigned to the another 50% employee (learners) the study reveals that the learner has been assigned the work of tending the cattle and milking them.

.3.4 DURATION OF RETENTION OF EMPLOYEES:

.3.4.1 The study further reveals that 100% employees have been employed on contract basis for one year on theterms and conditions agreed upon by the employees. On the expiry of one year' speriod the re-employment of employees depends upon the sweet will of the employers.

....510/-

If the employers are satisfied with the work and behaviour of the employee they would further be retained and re-employed otherwise they would declined.

1.3.5 IMPRESSIONS OF THE EMPLOYER ABOUT THE LEARNERS' WORK EFFICIENCY BEHAVIOURAL CHANGES AFFECTED BY THE EFFORTS OF THE NFE CENTRE INSTRUCTOR:

1.3.5.1 As regards the impact of education obtained at the NFE centres by the learners (employees) the study reveals that 100% employers have been impressed with the work efficiency of their employees (learners) since their joining the NFE centres. The study further reveals that according to the opinion of 100% employers of the sample the learners (employees) have acquired theknowledge of the nature of their job better after having attended the NFE centres. Moreover they (employees) observe punctuality and regularity better in the performances of their duties pertaining to their job assignment than before.

1.3.5.2 The study further reveals that according to 100% employers the learners have worked with more efficiency than before on account of their attending the NFE centres. Moreover, 100% employers feel that their employees have started taking keen interest which is all due to the education which they are getting while attending the NFE centres.

1.3.5.3 The study further reveals that according to the opinion of 50% employers the education being obtained at the NFE centre has modified their behavious to a great

extent, which is observed in their dealings with the customers. The following table explain this :

.5.4 Distribution of employers on the basis of their impression about the work efficiency of their employees (Learners) and according to their classifications of SC/ST/Male/Female/ and others :

Characteristics	Employers			
	SC/ST Male /Female		Others Male / Female	
	No.	%	No.	%
1. Impression of employers about the improvement in work efficiency	-	-	2	100
2. About more regularity in in the performances of their duties	-	-	2	100
3. Working more efficiently	-	-	2	100
4. Taking more interest in work	-	-	2	100
5. Behaviour of employees (learners) with customers better than before	-	-	2	100

.3.6 BEHAVIOURAL CHANGES NOTICED IN THE LEARNERS ' BEHAVIOUR:

1.3.6.1 The present study reveals that the employers noticed a great deal of behavioural change in their employees since they have been attending the NFE centres. According to the employers the education being obtained at the NFE centres has developed their (learners) Scientific outlook, better understanding and comprehension. Moreover, as per opinion of the employers the employees have become more polite more respectful than ever. The study further reveals that according to 100% employers their employees (learners) have developed more positive attitude towards them (Employers). Now they (Learner) accept their suggestions without any hitch and share common interest with them.

1.3.6.2 According to 50% employers if their employees (learners face any problem during the course of performing their duties, they discuss with them (Employers) very politely and accept their suggestions and solut ions of the problems. On the whole, according to the employers the impact of education is observed in the attitudinal behaviour improved manner, sense of responsibility and clear understanding and better comprehens on of the learners:

The following table explains this:

1.3.6.3 TABLE NO.14

1.3.6.3 Distribution of employers on the basis of their impression about the behavioural changes of their employees and according to their classifications of SC/ST/Male/Female and others :

...513/-

Characteristics	Employers: SC/ST Male / Female No.	%	Others Male / Female No.	%
1. Have developed pisitive attitude towards the emplyers	-	-	2	100
2. Readily accept suggestion of the employers	-	-	2	100
3. Share common interest with employers	-	-	2	100
4. share more responsibility	-	-	1	50
5. Discuss their problems with employers	-	-	1	50

1.3.7 IMPRESSION OF EMPLOYERS ABOUT THE BEHAVIOUR OF THEIR EMPLOYEES (LEARNERS) WITH THEIR CO-WORKERS:

1.3.7.1 The impact of education os observed in the attitudinal behaviour of the learners. The present study reveals that according to the impression of the 100% employers about the behaviour of their employees (Learners) with their co-workers as noticed by them, has been found very good. The learners have become very polite, co-operative assertive and have developed helping attitude through education they (learners) have obtained at the NFE centres .

....514/-

1.3.8 CENTRAL EXPECTATIONS OF THE EMPLOYERS FROM THE NFE CENTRES AND SUGGESTION FOR THE LEARNING ASPECTS OF THEIR EMPLOYEES (LEARNERS) :

1.3.8.1 From the perusal of the preceding chapters it is quite evident that the course prescribed for primary level of NFE programme is too heavy to be covered up within two years with intensive learning for two hour a day to develop the competencies at par with formal education. Due to lack of adequate facilities in respect of accommodation, physical facilities for seating arrangement inadequate arrangement for light and water, untimely supply of Instructiona material, lack of teaching aids and proper effective and frequent supervision and guidance and desired success is not suggestions of the employers provided for the improvement of the standard of Education the adequat facilities,, pertaining to the above mentioned should be provided. 50 of the employers have suggested that training for some vocation should also be a part and parcel of education at the NFE Centres. After conducting a detailed survey and finding out the burning needs of the communities at large together with the availability of Fauna and Flora and raw material, salebility of finished products the training for the particular vocation to some other vocations such as Agriculture and Animal Husbandry etc. should be provided at the NFE Cobtres suiting to needs and life tituations of the learners.

1.3.8 CONCLUSION:

1. The congenial atmosphere of the NFE centre, the likings of the learners for their fellow NFE children the behaviour of the instructor, his teaching technique and efficiency in organising teaching, learning activities at the NFE centre motivate the learners to maintain puntuality, regularity and continuity at the NFE Centre.

2. The education obtained at the NFE centres inculcates the spirit of extending their cooperation and assistance to their parents in their vocation and in performaing their household work with efficiency and sincerety.

3. The education brings desired improvement in their behaviour, which helps them in dealing with people more politely and courteously.

4. As regards the benefits derived from the NFE centres the learners feel that they have developed the skill to read correctly, accrately, exactly with desired speed and comprehension.. Moreover, the competencies developed in numeracy more specifically in calculations help them in solving the problems of their life situations.

5. The learners have expressed their keen desire for making necessary arrangements of some sort of vocational training to enable them to earn their livelihood on covering the entire course at the centre.

...516/-

6. The personal pursuation of instructor, and other functionaries of the NFE programme, the congenial atmosphere of the NFE centre, the effective and efficient organisation of the twaching learning activities etc. motivate the parents to send their children to the NFE centre to get education.

7. The parents are highly impressed to observed the behavioural changes of their children, their developed habits for maintaining sound physique by observing the attitudinal behaviour developed through education being obtained at the NFE centre.

8. Further, the parents feel great pleasure to observe the impact of education upon their children reflected through their academic competencies, sharing home responsibilities. Participating in family decision and dealing with people politely properly and with etiquettes.

III. 9. The employers are highly impressed to observe the impact of education being obtained by their employees at the NFE centre, which is reflected through their better understanding of the Job, work efficiency, scientific outlook, sense of responsibility, positive attitude, improved manners and attitudinal behaviour.

10. The learners, parents and employers have offered serveral suggestions for the efficient and effective functioning of the NFE centres and successful implementation of the NFE programme.

..517/-

CHAPTER - VII

PART - I

MAJOR FINDINGS AND CONCLUSION

1.1 INTRODUCTION:

1.1.1 From the perusal of the preceding chapters it is quite evident that the experimental project of non-formal education programme lounched with a very humble start in Rajasthan in the year 1974 has emerged to be a very forceful alternative strategy through which vigorous efforts have been being made to bring the non-enrolled, depriveds, dropouts and out of formal school children of 9-14 years age group mostly belonging to economically and socially backward, scheduled castes and scheduled tribes, povery striken and down trodden class of people residing in the remotest part of rural, tribal, desert, hilly and slum areas of the State into the fold of education. It has also been stated that during the year 1985-86, 3,45,236 children including 1,62,952 girls have been benefitted at 10,242 NFE centres in the State.

1.1.2 CURRICULUM:

The present study reveals that a separate curriculum has been devised by SIERT Rajasthan in 1980-81 for primary level of NFE in accordance with the principles, philosophy, concepts and objectives of NFE programme to develop the competencies at par with formal education and suiting to the needs and life situations of the children. The course prescribed in the curriculum is

covered in two years duration with two hours intensive teaching and learning daily.

1.1.3 INSTRUCTIONAL MATERIAL:

1.1.3.1 The SIERT, Rajasthan has also developed the Instructional material consisting of five Text books (Three on Language, Environmental Studies, Natural Science SUPW and Health and Hygiene all with integrated approach and two on disciplinary approach in accordance with the course prescribed in the Curriculum.

1.1.3.2 Neither a work book nor a supplementary Reader has been prescribed for NFE programme. The instructional material is supplied to the children free of cost.

1.1.3.3 Besides the aforesaid instructional material the following teaching material has also been devised for providing adequate academic, pedagogical, organisation and evaluation guidance to the instructors, supervisors and other field functionaries of NFE programme.

(i) Training Manual- Anoupcharik Shiksha Anudeshak Prashikshan Manjusha

(ii) Teacher's guide- Anoupcharik Shiksha Sandarshika

(iii) Evaluation device- Book on unitwise Tests. Anoupcharik Shiksha Ikai Parakh Pustika

(iv) An Introduction to NFE- Anoupcharik Shiksha Parchaika

No Teacher's Handbook has been devised in Rajasthan

1.1.4 TEACHING METHODOLOGY:

Various methods of teaching different subjects and topics have been suggested in the aforesaid teaching material

such as- Drill Method, Lecture Method, Description, Demonstration, Role play, Learning by doing, story telling play-way, Group discussion, question and Answer method etc. The instructor may adopt anyone of them suiting to the needs and learning situations.

1.1.5 CLASS MANAGEMENT:

Mostly the NFE Centres are run at the residence of the Instructors, where adequate accommodation for the seating arrangement of twenty five learners of heterogenous age group ranging from 9 to 14 years, proper lighting arrangement and facilities for drinking water, toilet etc . are not available, still the jamority of the instructors maintains satisfactory class management and proper discipline.

1.1.6 EVALUATION:

Although there exists no provision for formal evaluation, frequent assessment, standardized tests or public examination, yet through unitwise oral tests, observation and behavioural changes the concurrent evaluation goes on at the initiation of the instructor. moreover, according to the standing order of the Directorate of primary and Secondary Education, Rajasthan the facilitties for multiple entry to formal education are provided on the basis of the competencies developed by the learners after a test.

1.1.7 CURRICULUM TRANSACTION:

1.1.7.1 The instructor plays an important and pivotal role at the grassroot level in the field for the sucdessful

implementation o NFE programme. The present emprical study reveals that almost all the instructors belong to the same locality of the NFE centres. Only 10% are females, none belongs to the weaker sections of the society i.e. SC and ST; but all continue staying at the NFE centres till the entire course prescribed for primary level is completed, which is very much encouraging.

1.1.7.2 The study further reveals that 75% Instructors are under qualified; (They possess the academic qualification upto middle standard only) professionally unsound and in-experienced. The short term in service training for six days duration is quite inadequate and insufficient and does not compensate their low academic qualification. They have to face a lot of problems and difficulties in curriculum transaction and in orgsnising teaching learning activities at the NFE centre on account of the following:

1.1.7.2.1 Ignorance of teaching technique and Methodology.

1.1.7.2.1 Lack of effective any frequent supervision and adequate academic and pedagogical guidance by the supervisory agencies.

1.1.7.2.3 Non availability of the literature on teaching Methodology, evalutation etc. such as Training Manual, Teacher's guide, Book on unitwise Tests, supplied to the instructor; which is very surprising.

1.1.7.2.4 Inadequate and untimely supply of instructional material such as Text Books, slates, pencils, Exercise books to the learners and Black-boards Chalk sticks, maps, charts etc. to the NFE centre.

1.1.7.2.5 Lack of community participation and involvement and active cooperation of parents and other developmental agencies for the following:

1.1.7.2.5.1 Providing adequate accommodation for the NFE centre and other physical facilities pertaining to drinking water, lighting arrangement, toilet, etc. for the children.

1.1.7.2.5.2 For the enrolment of the out of school children and motivation to the NFE children for maintaining punctuality, regularity, continuity and retention till the entire prescribed course is covered up.

1.1.7.2.5.3 For providing incentives to the NFE children in the form of Midday meals and free uniforms etc.

1.1.7.2.5.3 to avoid wastage (Dropping out).

1.1.7.2.6 Low and poor attendance of learners and problem of dropouts due to lack of incentives in the form of scholarships to the girls and other needy children, award of prizes for outstanding and excellent performances.

1.1.7.2.7 Lack of recreational activities, arrangement for playing games and sports and other co-curricular activities.

1.1.7.2.8 The contents of the courses in the Text books are too heavy to be covered within the prescribed.

period. Moreover, the level of difficulty of the contents of Text book is beyond the comprehension of learners.

1.1.7.3 SUGGESTIONS FOR IMPROVEMENT:

1.1.7.3.1 According to the present study 50% instructors have expressed their keen desire for increasing the period of in-service training from six days to fifteen days for imparting intensive training in Teaching Methodology, evaluation technique, maintenance of record and periodical returns, motivation technique for enrolment of out of school children and their retention, community participation and involvement for the successful functioning of the NFE centre.

1.1.7.3.2 The refresher course should be organised for six days' duration every year to orient the instructors to solve the problems faced during the course of curriculum transaction and to orient them in the latest teaching technology.

1.1.7.3.3. The instructors have suggested that the duration of the period allotted for covering the Text Books should be increased. In their opinion the contents of the Text Books are beyond the comprehension of learners and deserve modification according to the mental development of learners.

1.1.7.3.4 The instructors have expressed their keen desire for the supply of audio-visual aids for the effective organisation of teaching learning activities at the NFE centre.

1.1.7.3.5 The instructors are of the opinion that the administration should make arrangement for suitable accommodation for running the NFE centre efficiently.

1.1.7.3.6 The remuneration of the instructors should be increased from Rs.105/- to Rs.300/- p.m.

1.1.8 SUPERVISION OF THE NFE CENTRES:

1.1.8.1 The experimental project of NFE envisaged that the work of the administration and supervision would be done through the already established administrative machinery of formal education with the exception of some strengthening at the Directorate level. Accordingly the responsibility of running NFE programme rests with the Director, Adult and NFE, Rajasthan with the assistance of one Joint Director, NFE Programme. As overall incharge the Joint Director of NFE programme shoulders the responsibility for its successful implementation with the help of the District Education Officers; who are further assisted by the full time Assistant Project Officer in each

District. The APO Coordinates the activities of NFE programme of all the Blocks in the District.

1.1.8.2 The Block Development Officer exercises administrative control over all the functionaries of the NFE programme in the Block consisting of one supervisor at each Block headquarter and instructors at the NFE centres.

1.1.8.3 At present all the supervisors are adequately qualified, professionally sound (Trained Post Graduate) and experienced Senior Teachers working on deputation from Education Department.

As overall incharge of the NFE programme at the block level a supervisor has to perform the following duties:

1.1.8.3.1 To conduct effective supervision of all the fifty NFE centres of his block atleast once a month as per norms.

1.1.8.3.2 To provide adequate academic and pedagogical guidance to the instructor to solve his problems and difficulties arising during the course of curriculum transaction.

1.1.8.3.3 To evolve pupil's performances and to encourage them to develop desired competencies at par with formal education.

.....525/-

1.1.8.3.4 To infuse the spirit in the NFE children for maintaining punctuality, regularity, continuity and retention at the NFE centre upto the coverage of the entire prescribed course for primary level.

1.1.8.3.5 Has to scrutinize the record maintained at the NFE centre pertaining to the regular academic progress of NFE children and provides guidance for submitting the periodical progress report of the NFE centre.

1.1.8.3.6 A supervisor evokes participation of the local community for the enrolment of out of school children and motivates parents for the retention of enrolled children at the NFE centre till the completion of whole course prescribed for primary level.

1.1.8.3.7 The supervisor arranges the timely supply of instructional material to NFE children and teaching material such as Black-boards, maps, charts, chalk-sticks etc. at the NFE centre.

1.1.8.3.8 Organises the in-service training for the instructors of his block under the guidance and supervision of District Education Officer and A.P.O.

1.1.8.3.9 Contacts the higher authorities of Education Department for the following:

1.1.8.3.9.1 For the supply of teaching material such as

curriculum, Teacher's guide, Training Manual, Evaluation device (Book on unit-wise tests). An introduction to NFE etc. to all the NFE centres of his block.

1.1.8.3.9.2 To provide incentives to NFE children in the form of Midday meals, free uniform, scholarships to girls and other needy NFE children, award of prizes for excellent and outstanding performances to avoid low and poor attendance and to maintain punctuality, regularity, continuity and retention at the NFE centre.

1.1.8.3.9.3 To increase the duration of the period of in-service training from six days to fifteen days.

1.1.8.3.9.4 To organise refresher courses every year for six days' duration to orient the instructors in the latest developments of NFE programme and for solving the problems experienced by them during the course of curriculum transaction.

1.1.8.3.9.5 To develop teacher's handbook for providing adequate acaddemic and pedagogical guidance to the instructors.

1.1.8.3.9.6 To provide audio-visual aids including latest developed multi-media approaches and educational technology to develop self-learning among NFE children.

1.1.8.3.9.7 To take adequate steps for the selection of qualified and sincere instructors impartially to

develop the quality and standard of NFE learners.

1.1.8.4 The supervisors are handicapped in conducting the frequent and effective supervision of fifty NFE centres even once in three months on account of the following reasons:

1.1.8.4.1 LACK OF ADEQUATE TRANSPORT FACILITIES:

Due to non-availability of transport facilities the supervisors feel that it is neither practicable nor feasible for them to cover the long distance existed between two NFE centres and to reach the centres located in the remotest parts of hilly, desert and tribal regions.

1.1.8.4.2 ADDITIONAL OVERLAPPING ASSIGNMENT PERTAINING TO THE DEVELOPMENTAL ACTIVITIES OF THE BLOCK:

1.1.8.4.2 75% supervisors have expressed their deep concern about the overlapping assignment pertaining to the developmental activities of the block entrusted by the Block Development Officer (who is their controlling authority) which hampers their normal work of supervision and providing adequate academic and pedagogical guidance to the instructors. The supervisors feel that the dichotomy of management puts hinderances in the performance of their sincere duties.

....528/-

1.1.8.4.3 As per norms fifty NFE centres have been allotted to one supervisor for conducting effective and frequent supervision and for providing adequate academic and pedagogical guidance to the instructors. But the supervisors feel that it is neither practicable nor feasible to visit them even once in three months.

1.1.8.5 SUGGESTIONS:

1.1.8.5.1 Adequate transport facilities should be provided to the supervisors for conducting effective and frequent supervisions to the NFE centres.

1.1.8.5.2 The norms for allotment of NFE centres should be determined keeping in view the geographical situations of the region. But the number of NFE centres should not exceed 25.

1.1.8.5.3 In order to avoid dichotomy of management the administration of NFE programme should be withdrawn from the Development Department.

1.1.8.5.4 Different models of supervision should be adopted according to the requirements and feasibility such as

a) Through whole time supervisor with the norm of 20-25 NFE centres per supervisor.

b) Through school complex programme.

c) Through supervisors of formal schools.

....529/-

1.1.9. NFE CHILDREN AND THEIR ACADEMIC ACHIEVEMENTS:

1.1.9.1 In order to evaluate the NFE programme and to find out the factual position in respect of the Academic achievements of NFE children the standarrized Tests on Language, Mathematics, Environmental studies and Natural science devised under the auspices of NCERT, New Delhi were administered to the NFE children studying at the NFE centres run by the Government Agencies and voluntary agencies as well. The same tests were also administered to the formal school children for comparison.

1.1.9.2 The NFE children were divided into two categories: Level I and Level II, on the basis of their competencies

1.1.9.2.1 LEVEL I: The children who have attendedd the NFE centres for one complete year and have covered up the course prescribed in seven units of the curriculum.

1.1.9.2.2 LEVEL II: The children who have attended the NFE centres for atleast two complete years and have covered up the whole course prescribed for primary level of the NFE programme.

1.1.9.3 Further the children were grouped according to their Age - such as I below 11 years and (ii) of above 11 years.

1.1.9.4 GENERAL INFORMATION OF THE CLIENTELE:

1.1.9.4.1 According to the criterion fixed for administering the tests 1000 NFE children from forty NFE centres of the sample @ 25 (15 from level I and ten from level II) per sample NFE centre ought to have appeared at the tests. But actually 814 NFE children (male and female) of all communities including SC/ST appeared, the percentage being 81.4%, which is quite significant. Out of the aforesaid number of NFE children 492 appeared at the tests meant for level I. The percentage being 82% which is also quite significant.

Similarly 322 NFE children appeared at the level II maintaining the percentage as 80.50%.

1.1.9.4.2 Further the ratio of male and female children appeared at the tests is 70:30. Similarly the ratio of the SC/ST and others is 27:73, which is remarkably significant and bears the testimony of awareness of SC/ST about the NFE programme and their aspirations for leading a better life after getting education at NFE centres.

1.1.9.4.3 The study further reveals that the ratio between the males and females of SC/ST children of the sample is 20:7; whereas that of other communities is 50:23.

1.1.10 Performances of NFE children belonging to both the age groups of below 11 and above 11 years and studying at the NFE centres run by the Government agencies on the basis of their classifications of SC/ST/Male/female and others in the subjects - Language Hindi, Mathematics, Environmental studies and Natural Science for level I and level II.

1.1.10.1 From the perusal of the preceding chapters it is quite evident that the performances of NFE children of all communities belonging to both the age groups of below 11 and above 11 years and studying at the NFE centres run by the Government agencies in all the subjects of Language Hindo, Mathematics, Environmental studies and Natural science for level I as well as for level II are remarkably significant. More than 64% the NFE children scored the high percentage of marks under the category of above average ranging between 10 to 30 in all the subjects for both the levels (i.e. level I and Level II).

1.1.10.2 The contribution of NFE children Male/Female belonging to the weaker sections of the society i.e. SC/ST towards the high percormances is also significantly remarkable. Out of the high achievers of all communities about 30% NFE children of SC/ST scored

the high percentage of marks under the category of above average ranging between 10 to 30 in all the subjects of level I and level II; which bears the testimony of the fact the children belonging to the weaker section of the society have high aspirations for leading better life by availing of the opportunities of education provided by NFE programme; which is quite evident from the statement given below:

1.1.10.3 Statement of the performances of the NFE children belonging to both the age groups of below 11 and above 11 years and studying at the NFE centres run by the Govt. agencies in the subjects of language Hindi, Mathematics, Environmental studies and natural science for level I and level II.

Different subjects	Level I: Percentage of children scoring the marks under the category of Below average 0 to 10 All Communities	SC/ST	Above average 10 to 30 All Communities	SC/ST	Level II: Percentage of children scoring marks under the category of Below average 0 to 10 All Communities	SC/ST	Above average 10 to 30 All Communities	SC/ST
Language Hindi	36%	8%	64%	19%	27%	6%	73%	22%
Mathematics	17%	5%	83%	22%	36%	8%	64%	17%

Environ-mental studies	21%	6%	79%	20%	15%	4%	85%	21%
Natural Science for level II only	-	-	-	-	15%	5%	85%	20%

1.1.10.4 The present emprical evaluation study further reveals that the standard of the scholastic achievements of the NFE children studying at the NFE centres run by the Government agencies is far far superior to that of the NFE children studying at the NFE centres run by the voluntary agencies in all the subjects for level I and level II as well.

1.1.10.5 The study further reveals that more than 60% NFE children of voluntary agencies scord the very low percentage of marks under the category of below average ranging from 0 to 10 in the subjects of language for level I and level II and in Mathematics for level II. Similarly more than 40% NFE children of voluntaryagencies scord the low percentage of marks under the aforesaid category in Environmental studies for level I and level II and in Natural Science, which explicityly significs their poor performance, and is quite evident from the comparative statements of the performances of NFE children of government Agencies and that of voluntary agencies given below.

1.1.10.6 Comparative statement of the performance of the NFE children belonging to both the age groups of below 11 and above 11 years and studying at the NFE centres run by the Government Agencies and vluntary Agencies in the subjects of language Hindi, Mathematics and Environmental studies for level I.

Characteristics	NFE children of voluntary Agencies				NFE children of Govt.			
	Percentage of children scoring the marks under the category				Percentage of children scoring the marks under the category			
Different subjects	Below average 0-10		Above Average 10-30		Below Average 0-10		Above Average 10-30	
For Level I	All communities	SC/ST	All Communities	SC/ST	All Communities	SC/ST	All Communities	SC/ST
Language Hindi	75%	28%	25%	8%	36%	8%	64%	19%
Mathematics	29%	11%	71%	27%	17%	5%	83%	22%
Environmental studies	48%	23%	52%	14%	21%	6%	79%	20%

1.1.10.7 Comparative statement of the performances of the NFE children belonging to both the age groups of below 11 and above 11 years and studying at the NFE centres run

by the Government Agencies and voluntary Agencies in the subjects of Language Hindi, Mathematics, Environmental studies and Natural science for level II.

Characteristics / Different subjects for level II	NFE children of voluntary agencies: Percentage of children scoring the marks under the category — Below Average 0-10		Above Average 10-30		NFE children of Govt. Agencies: Percentage of children scoring the marks under the category — Below Average 0-10		Above Average 10-30	
	All Communities	SC/ST	All Communities	SC/ST	All Communities	SC/ST	All Communities	SC/ST
Language Hindi	72%	19%	28%	14%	27%	6%	7[illegible]%	22%
Mathematics	63%	23%	37%	10%	36%	8%	64%	17%
Environmental studies	44%	13%	56%	20%	15%	4%	85%	21%
Natural science	40%	11%	60%	22%	15%	5%	85%	20%

1.10.8 The study further reveals that in accordance with the inferences drawn on the basis of the critical analysis and comparative statements of the performances of NFE children of Govt. agencies and that of formal school children

in all the aforesaid subjects for level I and level II it is quite evident that the standard of the scholastic achievements of the NFE children male and female of all communities and belonging to both the age groups of below 11 and above 11 years is far far superior to that of formal school children; which is very much encouraging and is evident from the statements showing the comparision of the performances of NFE children studying at the NFE centres run by the Govt. Agencies with that of Government Primary schools in all the subjects given below :

1.1.10.9 Comparative statement of the performances of the formal school children of the four Government Primary schools of the sample and NFE children belonging to both the age groups of below 11 and above 11 years and studying at the NFE centres run by the Givt. Agencies in the subjects of Language Hindi, Mathematics and Environmental studies for level I.

Characteristic	Formal School children				NFE children			
	Percentage of children scoring the marks under the category				Percentage of children scoring the marks under the category			
Different sujbects for level I	Below Average 0-10		Above Average 10-30		Below Average 0-10		Above Average 10-30	
	All communities	SC/ST	All Communities	SC/ST	All Communities	SC/ST	All Communities	SC/ST
Language Hindi	39%	NIL	61%	2%	36%	8%	64%	19%

Maths.	32%	Nil	68%	2%	17%	5%	83%	22%
Environ-mental studies	41%	Nil	59%	2%	21%	6%	79%	20%

1.1.10.10 Comparative statement of the performances of the formal school children of four Govt. Primary schools of the sample and the NFE children belonging to both the age groups of below 11 and above 11 years and studying at the NFE centres run by the Govt. agencies in the subjects of Language Hindi, Mathematics, Environmental studies and Natural Science for level II.

Different subjects for level II	Formal School children — Percentage of children scoring the marks under the category				NFE children — Percentage of children scoring the marks under the category			
	Below average 0-10		Above average 10-30		Below average 0-10		Above average 10-30	
	All communities	SC/ST	All communities	SC/ST	All communities	SC/ST	All communities	SC/ST
Language Hindi	41%	8%	59%	2%	27%	6%	73%	22%
Maths	38%	2%	62%	8%	36%	8%	64%	17%
Environmental studies	18%	NIL	82%	10%	15%	4%	85%	21%
Natural science	15%	NIL	85%	10%	15%	5%	85%	20%

....538/-

1.1.10.11 The remarkable scholastic achievements of NFE children bear the testimony of the fact that they have developed the desired competencies in all the subjects at par with formal school children fulfilling the objectives of Non-formal Education.

1.1.10.12 Further, the parents of the NFE learners, when interviewed, expressed their great pleasure about the impact of education obtained at NFE centres, by their children reflected through their academic competencies, sharing home responsibilities and their attitudinal behaviour.

1.1.10.13. The study further reveals that the employers of the NFE learners are also highly impressed to observe the impact of education obtained at the NFE centre by their employees (NFE learners) reflected through the better understanding of the job, work efficiency, scientific, outlook, academic competencies, sense of responsibility and improved manners of their employees (NFE learners)

1.1.11.1 Comparative statement of the performances of the NFE children studying at the NFE centres of the four Blocks of the sample - Pisangan and Sri Nagar of District Ajmer and Chohtan and Dhori Manna of District

....539/-

Barmer in all the subjects of Language Hindi, Mathematics and Environmental studies for level I

Subjects	District Ajmer				District Barmer			
	Pisangan		Sri Nagar		Chohtan		Dhori Manna	
	Below average 0-10	Above Av. 10-30	Below Av. 0-10	Above Av. 10-30	Below Av. 0-10	Above Av. 10-30	Below Av. 0-10	Above Av. 10-30
Language Hindi	50%	50%	84%	16%	15%	85%	1%	99%
Maths.	15%	85%	47%	53%	8%	92%	Nil	100%
Environmental studies	32%	68%	42%	58%	14%	86%	-	100%

1.1.11.2 Comparative statement of the performances of the NFE children studying at the NFE centres of the four blocks of the sample - Pisangan and Sri Nagar of District Ajmer and Chohtan and Dhori Manna of District Barmer in all the subjects of Language Hindi, Mathematics, Environmental studies and Natural science for level II.

Subjects	District Ajmer				District Barmer			
	Pisangan		Sri Nagar		Chohtan		Dhori Manna	
	Below Av. 0-10	Above Av. 10-30	Below Av. 0-10	Above Av. 10-30	Below Av. 0-10	Above Av. 10-30	Below Av. 0-10	Above Av. 10-30
Language Hindi	43%	57%	40%	60%	18%	82%	5%	95%
Maths.	61%	39%	52%	48%	21%	79%	3%	97%
Environmental studies	33%	67%	19%	81%	NIL	100%	NIL	100%
Natural science	25%	75%	24%	76%	3%	97%	NIL	100%

1.1.11.3 Comparison of the performances of the NFE children belonging to both the age groups of below 11 and above 11 years and studying at the NFE centres of the four blocks of the sample - Pisangan and Sri Nagar of District Ajmer and Chohtan and Dhori Manna of District Barmer in the subjects of Language Hindi, Mathematics and Environmental studies for both the levels of I and II and Natural Science for level II.

1.1.11.3.1 On the basis of the comparative statement it is quite evident that the highest percentage of NFE children of the Block Dhori Manna of District Barmer scored the marks under the category of above average ranging

between 10 to 30 in Language Hindi for level I as well as for level II.

1.1.11.3.2 The lowest percentage of NFE children of the Block Sri Nagar District Ajmer scored in Language for level I; whereas for level II the lowest percentage of NFE children of the block Pisangan District Ajmer scored the marks.

1.1.11.3.3 Similarly the highest percentage of NFE children of the block Dhori Manna of District Barmer scored the marks in Mathematics for level I as well as for level II.

Whereas the lowest percentage of NFE children of the block Sri Nagar District Ajmer scored in Mathematics for level I but for level II the lowest percentage of the NFE children of the block Pisangan District Ajmer scored the marks under the category of above average ranging from 10 to 30.

1.1.11.3.4 Again the highest percentage of NFE children of the block Dhori Manna of District Barmer scored the marks under the category of above average in Environmental studies for level I and level II as well.

Whereas the lowest percentage of NFE children of the block Sri Nagar od District Ajmer scored in Environmental studies for level I; but for level II

.......542/-

the lowest percentage of NFE children of the block Pisangan District Ajmer scored the marks under the category of above average ranging from 10 to 30 in Environmental studies.

1.1.11.3.5 The study further reveals that the highest percentage (100%) of NFE children of the block Dhori Manna of Distt. Barmer scored the high percentage of marks under the category of above average ranging from 10 to 30; whereas the lowest percentage of NFE children of the block Pisangan of District Ajmer scored the highest percentage of marks in Natural science.

1.1.11.3.6 On the whole the present empirical evaluation study reveals that the performance of the NFE children of the Block Dhori Manna of District Barmer is significantly remarkable in all the subjects of level I as well as for level II.

1.1.11.3.7 Whereas the lowest percentage of NFE children of the block Sri Nagar District Ajmer scored the high percentage of marks in all the subjects for level I but for level II the NFE children of the Block Pisangan District Ajmer scored in lowest percentage.

...543/-

1.1.12 CRITICAL ANALYSIS OF THE RATING CHARTS:

1.1.12.1 From the perusal of the preceding chapters it is quite evident that the different aspects of the NFE programme have significant impact upon the effective functioning of the NFE centres and ultimately reflect the performances of the NFE children.

In order to evaluate the different aspects of the NFE programme visualized by the investigators at the time of their direct supervision of the NFE centres, the observations were recorded on a four point scale of Rating charts i.e. poor, average Good and excellent.

1.1.12.2 The symbolic evaluation has been converted to scores arbitrarily and calculated accordingly to find out the average as given below:

Evaluation	Symbole	Score
Poor	P	10
Average	A	20
Good	G	30
Excellent	E	40

1.1.12.3 Similarly the average of the total scores obtained by all the NFE children in the subjects- Language Hindi, Mathematics, Environmental studies for level I and level II and Natural science for level II of each NFE

centre has been calculated for comparative study

1.1.12.4 The comparative statements of the performances of the NFE children in all the subjects for level I and level II and the evaluation of each NFE centre calculated on the basis of the Rating Charts are enclosed herewith block-wise for comparative study.

1.1.12.4.1 Comparative statement of the performances of the NFE children in all the subjects for level I and level II and the evaluation of the NFE centres of the Block Pisangan District Ajmer on the basis of the Rating Charts.

S.No.	NFE centre	Percentage of scores of performance of NFE children	Scores of evaluation on the basis of Rating Chart	Total
1.	Govindgarh	33	13	46
2.	Jethana	33	16	49
3.	Kalsera	34	14	48
4.	Kothi Chanwandiyon	49	18	67
5.	Lotipura	57	19	76
6.	Nyara	64	22	86
7.	Ratangarh	53	20	73
8.	Rata Khera	49	23	72
9.	Regar Mohalla Pisangan	22	19	41
10.	Sethan	48	17	65

1.12.4.2 Comparative statement of the performances of the NFE children in the subjects of Language Hindi, Mathematics, and Environmental studies for level I and level II and Natural science for level II and the evaluation of the NFE centres of the Block- Sri nagar of District Ajmer on the basis of Rating Chart.

S.No.	NFE Centre	Percentage of scores of performance of NFE children	Scores of evaluation of the centre on the basis of Rating Chart	Total
1.	Chandsen	37	15	52
2.	Deoliya	21	17	38
3.	Kalyanipura	37	22	59
4.	Kanpura	42	20	62
5.	Kesarpura	30	19	49
6.	Mandiyani	31	26	57
7.	Morajhan	40	13	53
8.	Nawah	49	15	64
9.	Ramsar	37	27	64
10	Sanod	50	20	70

1.12.4.3 Comparative statement of the performances of the NFE children in all the subjects for level I and level II and the evaluation of the NFE centres of the Block Chohtan of District Barmer in different aspects of the

.....546/-

NFE programme on the basis of Rating Charts

S.No.	NFE Centre	Percentage scores of performance of children	Score of evaluation of the centre on the basis of Rating Charts.	Total
1.	Bawa Kalan	65	28	93
2.	Dedusar	71	29	100
3.	Gohar ka Tala	70	28	98
4.	Malnor	61	31	92
5.	Meghwalon ka mohalla	35	25	60
6.	Mithran	57	30	87
7.	Sagaran	50	20	70
8.	Salariya	44	25	69
9.	Sharnarthi camp	40	28	68
10.	Sheraniyon ka Tala	65	28	93

1.1.12.4.4 Comparative statement of the performances of NFE children in all the subjects for level I and level II and evaluation of the NFE centres of the block Dhorimanna of District Barmer on different

.......547/-

aspects of the NFE programme on the basis of Rating Charts.

S.No.	NFE Centre	Percentage of score of performance of NFE children	Score of evaluation of the centre on the basis of Rating Chart.	Total
1.	Ajaniyon Ki Dhani	65	28	93
2.	Akalphata Ogala	70	31	101
3.	Chhabralon ki dhani	54	25	79
4.	Koja	65	23	88
5.	Koliyan ke Ber	54	28	82
6.	Phagaloo ki dhani	61	24	85
7.	Raj Musalaman ki Bera	65	27	92
8.	Sarano ka Talla	58	29	87
9.	Sanwan ki Beri	56	23	79
10.	Siyaon ki Naadi	58	22	80

...548/-

1.1.12.5 INTERPRETATION OF THE RATING CHART:

The item-wise interpretation of the Rating Chart is given below:-

1.1.12.5.1 ITEM NO. I

As regards the observations recorded in the Rating Chart pertaining to the general condition of the NFE centres of the sample. The study reveals that 13% NFE centres have poor, 65% average and 22% have good general condition. No NFE centre of the sample has an excellent general condition. On the basis of the aforesaid evaluation it is quite evident that lack of adequate accommodation, proper arrangement for lighting, drinking water, lavatory and toilet facilities and inadequate and untimely supply of instructional materials etc, has affected the successful organisation of teaching learning activities at the NFE centres and untimely reflected very adversely upon the academic achievements and performances of NFE learners; which is quite evident from the very poor performances of NFE children of the block Sri Nagar District Ajmer in all the subjects for level I and the block Pisangan District Ajmer for level II.

1.1.12.5.2 AVAILABILITY OF RESOURCE MATERIAL:

From the perusal of the preceding chapters it is

..... 549/-

quite evident that no resource materials, no literature on teaching Methodology and teaching techniques- such as Teacher's guide (Anaupcharik Shiksha Sandarshika) Training Manual (Anaupcharik Shiksha Anudeshak Prashikshan Manjusha), Evaluation Device - Look on unit-wise test, (Anaupcharik Shiksha Ekai Parikh Pustika) An Introduction to NFE (Anaupcharik Shiksha Parichayika) etc. devised by SIERT, Rajasthan is supplied to the NFE centres for the guidance and effective use of NFE Instructors. Moreover, it is very alarming that even the curriculum does not reach their hands. No teacher's handbook has been devised in Rajasthan. In absence of the aforesaid literature the academically underqualified instructors (75% instructors possess the academic qualification upto Middle standard) as well as professionally poor (the inadequate and insufficient inservice training for six days duration does not compensate the poor academic qualification of the instructors) face a lot of problems and difficulties in curriculum transaction whihh tulimately affects the performance of the NFE children very adversely.

1.1.12.5.2.1 The present study reveals that 90% NFE centres do not receive the resource material. Very few of them are supplied with inadequate and insufficient teaching aids.

1.1.12.5.2.2 The study further reveals that in accordance with the observations recorded in the Rating chart 100% NFE centres of the blocks of Pisangan and Sri Nagar of the District Ajmer, 70% NFE centres of the Block Chohtan and 90% of Dhori Manna of District Barmer are deprived of the very essential resource material, consequently the organisation of teaching learning activities is affected very adversely and ultimately reflects the performance of NFE children.

1.1.12.5.3 REGULARITY AND PUNCTUALITY OF THE INSTRUCTOR:

1.1.12.5.3.1 The present study reveals that 70% Instructors of the block Pisangan and 90% instructors of Sri Nagar of District Ajmer do not maintain punctuality and regularity at the NFE centres. Consequently the performance of their NFE children has been affected very adversely; which is quite evident from the comparative statements of the performance recorded in the preceding pages of this chapter. The NFE children of the aforesaid NFE centres must have developed the same habits of irregularity. The low and poor attendance of the NFE children hampers the organisation of teaching learning activities and affects the scholastic achievements of the NFE children very adversely.

1.1.12.5.3.2 The study further reveals that 100% instructors of the block Chohtan and Dhorimanna of the desert area of District Barmer maint in punctuality and regularity at the NFE centres consequently more than 90% NFE children of the aforesaid two blocks maintained significantly remarkable performances in all the subjects for level I and level II; which is quite evident from the comparative statements of the performances given on the reverse.

1.1.12.5.4 <u>INSTRUCTORS KNOWLEDGE OF CONTENT:</u>

1.1.12.5.4.1 It is quite evident from the preceding chapters that 75% instructors possess minimum academic qualification upto middle standard. The present study reveals that 70% instructors of the block Pisangan and 80% of Sri Nagar of District Ajmer possess very poor knowledge of the content in basic disciplines, local environment and broad national and social environment, which has reflected the performance of their children ultimately. Consequently the lowest percentage of NFE children of the block Sri Nagar scored the marks under the the category of above average in all the subjects for level I, which is quite evident from the comparative statements of the performances of the NFE children given on the back.

1.1.12.5.4.2 The study further reveals that 90% instructors of the block Chohtan and 70% of Dhori Manna of the desert area of District Barmer possess very good knowledge of the content in Basic disciplines in spite of the fact that the majority of them possess the academic qualification upto middle standard; which is quite evident from the perusal of the preceding chapters; but their sincerity, dedication and devotion and involvement in the NFE programme inspired them to possess the command over the contents which ultimately reflected in the significantly remarkable performance of their children.

1.1.12.5.5 COMPETENCE OF INSTRUCTOR IN COMMUNICATIVE SKILLS:

The present study reveals that 80% instructors of the block Pisangan and 70% of block Sri Nagar of the District Ajmer possess poor competency in communicative skill; whereas 60% instructors of the block Chohtan and 80% instructors of the block Dhori Manna of the desert area of District Barmer are excellent in communicative skill. Consequently they communicate learning to the NFE children very efficiently and organise teaching learning activities very successfully, which has enabled the NFE learners of their centres in developing desired

competencies at par with formal school children and in maintaining remarkably significant and far far better percentage in the scholastic achievements; than the NFE children of the Blocks -Pisangan and Sri Nagar of District Ajmer; which is quite evident from the comparative statements of the performances of NFE children belonging to different blocks of the sample.

1.1.12.5.6 CLASS MANAGEMENT:

1.1.12.5.61 It is quite evident from the perusal of the preceding chapters that effective class management enables the instructors in organising teaching learning activities efficiently for the NFE children of heterogenous age group ranging from 9 to 14 years and ultimately in developing desired competencies of the NFE learners.

1.1.12.5.6.2 The present study reveals that 90% instructors of the block Pisangan and 70% of Sri Nagar maintained very poor class management, whereas 70% instructors of the block children and 90% of Dhori manna of the desert area of District Barmer maintain very good and effective class management; consequently the NFE children of the two Blocks of Dhori manna and Chohtan maintained significantly remarkable percentage of the performance in all the subjects for level I and

level II; whereas on account of the poor and average class management the NFE children of two blocks of Pisangan and Sri Nagar could maintain very poor standard of scholastic achievements.

1.1.12.5.7 COMPETENCY OF THE INSTRUCTOR IN THE ORGANISATION OF TEACHING LEARNING ACTIVITIES:

1.1.12.5.7.1 The present study reveals that 90% instructors of the block Pisangan and 80% instructors of Sri Nagar do not possess adequate competency in the organisation of effective and efficient teaching learning activities at the NFE centres; consequently their learners could not attain the desired standard of scholastic achievements; whereas 80% NFE instructors of the block Chohtan and Dhori Manna as well organised effective teaching learning activities at the NFE centres; consequently their children maintained very high percentage of performances in all the subjects; which is quite evident from the comparative statement of the performances given in the reverse.

1.1.12.5.8 ORGANISATION OF THE CO-CURRICULAR ACTIVITIES AT THE CENTRE:

1.1.12.5.8.1 From the perusal of the preceding chapters it is quite evident that neither recreational nor co-curricular activities including Games and sports are

organised at the NFE centres due to lack of supply of Games material. NFE children do not maintain punctuality regularity and continuity at the NFE centres and drop-out in between causing a lot of wastage. The low attendance and irregularity of NFE children puts hinderance in the successful organisation of teaching learning activities and ultimately effects the performances of the children very adversely.

1.1.12.5.8.2 The present study reveals that at cent percent NFE centres of the block Pisangan, 80% of Sri Nagar, 60% of Chohtan and 70% of the block Dhori Mana the co-curricular activities are not organised; consequently the NFE children do not get motivated in maintaining regularity, continuity and retention at the NFE centres.

1.1.12.5.9 REGULARITY OF THE LEARNERS:

1.1.12.5.9.1 The low and poor attendance and irregularity of the learners at the NFE centres puts hinderances in the successful and efficient curriculum transaction. The present study reveals that due to lack of incentives in ther form of midday meals, free uniform, provision for the award of scholarships to the needy and poor NFE children, mostly girls and organisation of the recreational activities the NFE children do not get motivated in maintaining punctuality, regularity,

continuity and retention at the NFE centres; and drop-out causing a lot of wastage.

1.1.12.5.9.2 The present study further reveals that 50% NFE learners of the block Pisangan and 20% of Sri Nagar maint in very poor regularity; 50% children of the block Pisangan, 80% of Sri Nagar and only 20% of Chohtan and 30% of Dhorimann maint in average regularity at the NFE centres; whereas 80% NFE children Chohtan and 70% of Dhorimann including 10% of each of them maintain very good and even excellent regularity. Consequently the highest percentage of children of the aforesaid two blocks scored the high percentage of marks under the category of above average in all the subjects maintaining the best performances.

1.1.12.5.9.3 Due to excessive irregularity the NFE children of the blocks of Pisangan and Sri Nagar attained very poor scholastic achievements as is quite evident from the perusal of the preceding chapters.

1.1.12.5.10 GENERAL APPEARANCE OF THE LEARNERS:

1.1.12.5.10.1 The present study reveals that 20% NFE centres of each of the two blocks of Pisangan andSri Nagar of District Ajmer maint in very poor neatness and cleanliness, whereas 80% of the NFE centres of Pisangan and 70% of Sri Nagar maintain on average; which very explicitly

indicates that the education of the NFE children being obtained at the aforesaid NFE centres does not bring any improvement in the habits of the children and has no impact upon their attitudinal and social behaviour; moreover, it also signifies the apathetic attitude of the instructors, supervisors and other administrative agencies and NFE functionaries towards their normal duties. Consequently, the performance of NFE children of the aforesaid two blocks has very adversely been affected; which is quite evident from the comparative statement of the performances of the NFE children of all the four blocks of the sample.

.1.12.5.10.2 The study further reveals that cent percent NFE centres of the blocks of Chohtan and Dhori Manna of the desert area of District Barmer maintain perpect personal neatness and cleanliness of the surrounding which very significantly bears the testimony of the fact that it is all due to awareness, sincerity, dedication, devotion and involvement of all the NFE field functionaries in the successful implementation of the NFE programme, which substantiates the findings of the proceeding chapters.

continuity and retention at the NFE centres; and drop-out causing a lot of wastage.

1.1.12.5.9.2 The present study further reveals that 50% NFE learners of the block Pisangan and 20% of Sri Nagar maintain very poor regularity; 50% children of the block Pisangan, 80% of Sri Nagar and only 20% of Chohtan and 30% of Dhori Mann maintain average regularity at the NFE centres; whereas 80% NFE children Chohtan and 70% of Dhorimann including 10% of each of them maintain very good and even excellent regularity. Consequently the highest percentage of children of the aforesaid two blocks scored the high percentage of marks under the category of above average in all the subjects maintaining the best performances.

1.1.12.5.9.3 Due to excessive irregularity the NFE children of the blocks of Pisangan and Sri Nagar attained very poor scholastic achievements as is quite evident from the perusal of the preceding chapters.

1.1.12.5.10 GENERAL APPEARANCE OF THE LEARNERS:

1.1.12.5.10.1 The present study reveals that 20% NFE centres of each of the two blocks of Pisangan andSri Nagar of District Ajmer maintain very poor neatness and cleanliness, whereas 80% of the NFE centres of Pisangan and 70% of Sri Nagar maintain on average; which very explicitly

indicates that the education of the NFE children being obtained at the aforesaid NFE centres does not bring any improvement in the habits of the children and has no impact upon their attitudinal and social behaviour; moreover, it also signifies the apathetic attitude of the instructors, supervisors and other administrative agencies and NFE functionaries towards their normal duties. Consequently, the performance of NFE children of the aforesaid two blocks has very adversely been affected; which is quite evident from the comparative statement of the performances of the NFE children of all the four blocks of the sample.

1.1.12.5.10.2 The study further reveals that cent percent NFE centres of the blocks of Chohtan and Dhori Manna of the desert area of District Barmer maintain perpect personal neatness and cleanliness of the surrounding which very significantly bears the testimony of the fact that it is all due to awareness, sincerity, dedication, devotion and involvement of all the NFE field functionaries in the successful implementation of the NFE programme, which substantiates the findings of the preceding chapters.

1.1.12.5.11 INVOLVEMENT OF THE LOCAL COMMUNITY AND THE DEVELOPMENTAL AGENCIES IN RUNNING THE CENTRE:

1.1.12.5.11.1 From the perusal of the preceding chapters it is quite evident that the NFE instructors have to face a lot of problems and difficulties in curriculum transaction and in organising teaching learning activities at the NFE centres on account of the lack of community participation and involvement and active cooperation of parents and other developmental agencies.

1.1.12.5.11.2 The present study reveals that at cent percent NFE centres of the block Pisangan and Sri Nagar of District Ajmer quite insignificant involvement of local community and developmental agencies has been observed and is reflected in the poor performance of the NFE children; whereas in accordance with the present study the local community extends its cooperation in the successful implementation of the NFE programme and effective functioning of almost all the NFE centres of the block Chohtan of the desert area of the District Barmer.

1.1.12.5.11.3 The study further reveals that 70% NFE centres of the block Dhori Manna ofDistrict Barmer get poor cooperation from the developmental agencies in running the NFE centres. However, the local community extends

its fullest cooperation by providing physical facilities pertaining to the adequate accommodation in the form of straw huts for NFE centres, seating arrangement, facilities for drinking water etc. at almost all the NFE centres of the block Dhori Mann; which is quite evident from the observations recorded by the project coordinator at the time of his personal visits to two NFE centres of Ajaniyon ki Dhani and Akalphata Ogala.

1.1.12.5.12 EVALUATION AS A WHOLE:

1.1.12.5.12.1 On the basis of the observations recorded on the Rating charts about the evaluation of the NFE centres as a whole it is quite evident that 20% NFE centres of the block Pisangan of District Ajmer come under the category of 'Poor' performances; 70% under the category of 'Average' and only 10% NFE centres are placed under the category of 'Good' performances.

1.1.12.5.12.2 Further the inferences drawn on the basis of the critical analysis of the Rating Charts and the performances of the NFE children in academic achievements stated in the statements given on the back pages conform the aforesaid observations with the following exceptions.

...560/-

1.1.12.5.12.2.1 Insted of 20% NFE centres of the block Pisangan come under the category of poor performances. (The average performance of the NFE children of the NFE centre, Raisar Mohalla of Pisangan is 22% which comes under the category of below average).

1.1.12.5.12.2.2 Insted of 70% NFE centres, 80% come under the category of 'Average' performances.

1.1.12.5.12.3 On the basis of the inferences drawn from the aforesaid critical appraisal, it is quite evident that the analysis of the Rating Chart substantiates the findings of the preceding chapters.

1.1.12.5.12.4 The study further reveals that on the basis of the observations recorded on the Rating Charts about the evaluation of the NFE centre as a whole it is quite evident that only 10% NFE centres of the block Sri Nagar of District Ajmer have been placed under the category of 'poor' performances; 70% 'Average' and 20% have been placed under the category of 'Good' performances.

1.1.12.5.12.5 But in accordance with the inferences drawn on the basis of the critical analysis of the Rating Charts and the performances of the NFE children in academic achievements, the following 30% NFE centres instead of 10% come under the category of 'poor' performances:

i) Deoliya

ii) Kosarpura

iii) Midyani.

.1.12.5.12.6 The study further reveals that 50% NFE centres instead of 70% are placed under the category of 'Average' performances.

.1.12.5.12.7 The findings of the critical analysis of the performances of the academic achievements of the NFE children of this block Sri Nagar bear the testimony of the fact that the lowest percentage of NFE children scored the high percentage of marks under the category of above average ranging between 10 to 30 in comparison with the NFE children of other three blocks in all the subjects for level I.

.1.12.5.12.8 Thus it is quite evident that the critical analysis of the Rating charts does not substantiate the findings of the preceding chapters.

.1.12.5.12.9 The study further reveals that on the basis ofthe evaluation as a whole recorded on the Rating Chart 10% NFE centres of the block Chohtan have been placed under the category of 'Good' performances.

.1.12.5.12.10 But in accordance with the findings of the critical analysis of the performances of the academic achievements of the NFE children and the analysis of

the Rating charts the NFE centres of the block Chohtan are placed under the following categories:-

1) 30% NFE centres of Meghwalon ka Mohalla, Sharnarthy Camp and Salariy are placed under the category of 'poor' performances; whereas no NFE centre is placed under the aforesaid category in the observations recorded on Rating Charts.

2) Again 30% NFE centres of this block Chohtan - namely, Sagarrav, Mithrao and Kalnor are placed under the category of 'Average' performance, whereas according to the observations recorded on the Rating Charts only 10% NFE centres are placed under the aforesaid category.

3) Lastly only 40% NFE centres-Dedusar, Gohar ka Talla, Bawari Kalan and Sheraniyon ka Talla come under the category of 'Good' performances instead of 90% NFE centres placed under the aforesaid category as per observations recorded on Rating Charts.

4) On the basis of the aforesaid critical analysis it it quite evident that the analysis of the Rating Chart does not substantiate the findings of the preceding chapters.

1.1.12.5.12.10 Further, in accordance with the observations recorded on the Rating Charts about the evaluation of the NFE centres of the block Dhori Manna of the desert

area of District Barmer it is quite evident:

i) that 10% NFE centres havebeen placed under the category of 'poor' performances.

ii) 50% centres in the category of 'Average' and

iii) 40% NFE centres have been placed under the category of 'Good' performances.

The inferences drawn on the basis of the analysis of the Rating charts and the performances of the NFE children in academic achievements, bear the conformity of the aforesaid observations with the following exceptions:

1. Instead of 10% NFE centres the following 20% centres are placed under the category of poor performance:

   a) Chhabaralon ki Dhan

   b) Sawaron ki Beri

2. Further, instead of 50% NFE centres, 40% are placed under the category of 'Average' performances;

Eventually, in accordance with the inferences drawn from the aforesaid critical appraisal it is quite evident that the analysis ofthe Rating Chart substantiates the findings of the preceding chapters.

CONCLUSION:

1.1.12.5.13 On the basis of the critical analysis of Rating Charts the following inferences are drawn:-

(1) 78% NFE centres of the sample suffer a lot due to lack of adequate accommodation and other physical facilities for sitting arrangement, lighting and drinking water, lavatory etc. They do not get adequate and timely supply of instructional material.

(2) The study further reveals that 90% NFE centres do not get adequate supply of resource material, teaching aids, games material in time. Moreover, no literature on teaching methodology, evaluation device, teacher's guide, Training Manual, Book on unit-wise test and even curriculum is supplied at the NFE centres.

(3) 40% NFE instructors do not maintain punctuality and regularity at the NFE centres of the blocks of Pisangan and Sri Nagar; Consequently the NFE children maintained lowest percentage of performances in all the subjects for level II and level I respectively; whereas 60% instructors maintained punctuality and regularity in the blocks of Chohtan and Dharimanna of the desert area of District Barmer. Consequently the highest percentage of NFE children scored the high percentage of marks under the category of above

.....565/-

average in all the subjects for level I and level II and developed the desired competencies in all the subjects far better than the formal school children.

(4) 40% instructors of the blocks Sri Nagar and Pisangan of District Ajmer possess very poor knowledge of contents; consequently their NFE children could not develop the desired competencies; whereas inspite of possessing the academic qualification upto middle standard more than 50% instructors of the sample and belonging to the blocks of Chohtan and Dhori Manna possessed the adequate knowledge of the content.

(5) 40% instructors of Pisangan and Sri Nagar do not possess the competency in communicative skill which affected the performance of their children very adversely.

(6) More than 50% instructors of the blocks of Chohtan and Dhori Manna possess the adequate competency in the organisation of teaching learning activities and maintain a very high percentage of performance.

(7) The class management of 40% NFE centres of Sri Nagar and Pisangan blocks has been very poor, which affected the performances of their learners very adversely.

(8) No co-curricular and recreational activities are organised at 80% NFE centres of the sample, which is a negative factor, which does not motivate NFE children for maintaining punctuality, regularity and continuity at the NFE centres, consequently they drop-out in between causing great wastage.

(9) At cent percent NFE centres of Pisangan and Sri Nagar blocks the learners do not maintain regularity; consequently the low attendance of the learners hampers their effective organisation of teaching learning activities.

(10) The general appearance of cent percent NFE learners of the blocks Sri Nagar and Pisangan has been found very poor, which reflects the poor impact of education being obtained by them at the NFE centres.

(11) The community involvement in the NFE programme at 90% NFE centres of the block Chohtan had very positive effect upon the successful functioning of the NFE centre whereas at 90% NFE centres of the block - Pisangan and Sri Nagar very poor community involvement was observed; consequently the problem of dropouts, non-enrolment of deprived and out of school children and very low and poor attendance of the learners was faced and it had a very adverse effect upon their performances.

...567/-

(12) The present empirical evaluation study reveals that the performances of the NFE children of the block Dhori Manna of District Barmer is significantly remarkable in all the subjects for level I as well as for level II on account of the sincerity, dedication, sense of dutifulness and perfect involvement of their instructors in the NFE programme and high aspirations of learners for leading a better life on getting education at the NFE centres.

(13) The study further reveals that the lowest percentage of the NFE children of the block Sri Nagar scored the marks under the category of above average ranging from 10 to 30 in all the subjects for level I; whereas for level II the NFE children of block Pisangan scored the lowest percentage; which is all due to the apathetic attitude of learners towards education and insincerety, lack of dutifulness and other human negative factors of their instructors, which is reflected through the observations recorded on Rating Charts.

(14) On the basis of the afforesaid critical analysis it is quite evident that the analysis of the Rating Chart substantiates the findings of the preceding chapters with certain exceptions.

CHAPTER- VII

PART-II

1.2 A COMPARATIVE STUDY OF THE MAJOR CONTENTIONS OF THE RATIONAL REPORT AND THE FINDINGS OF THE EMPIRICAL STUDY:

1.2.1 The evaluation study of the academic aspects of the non formal education has been conducted Rationally as well as empirically. In order to find out the major lapsities and gaps between theory and practice, between theoritical pre-consideration and practical implementation and the areas for improvement as a logical cerollary of the above comparative study of the major contentions of the Rational report and the findings of the empirical study is given below:-

1.2.1.1 CURRICULUM

1.2.1.1.1 The Rational Evaluation study reveals that the State Institute of Educational Research and Training (SIERT) Rajasthan developed a separate curriculum for NFE programme in 1980-81 for Primary level for the children of 9-14 years age group in accordance with the objectives, concepts, philosophy

and principles of NFE to be followed at the NFE centres of Rajasthan. It has relevance with the curriculum of formal system of education and its standard is also at par with it. Its contents have been derived from the needs and life situations and life styles of learners.

1.2.1.2 THE SALIENT FEATURES OF THE CURRICULUM:

1.2.1.2.1 The content of the curriculum has academic, social, vocational and national concepts and covers language, (Mother tongue - Hindi), Mathematics, Environmental studies, socially useful productive work, Health and Hygiene all in integrated form except Mathematics. The duration for covering the course prescribed in the curriculum for primary level is two years with two hours daily, regular and intensive teaching-learning at any time according to the convenience of the NFE children.

1.2.1.3 FORMAT OF THE CURRICULUM:

1.2.1.3.1 As regards the format of the curriculum the Rational study reveals that it is totally on non formal style. Formal styles like specific objectives, strategies, evaluation, certifications etc. have been avoided. All academic disciplines are woven unitwise.

1.2.1.4 INSTRUCTIONAL MATERIALS:

1.2.1.4.1 The Curriculum devised for primary level of NFE programme has academic, social, vocational and national concepts and is covered in two years through the following five text books - three on language Hindi, Environmental studies, SUPW, Natural science in integrated form and two on Mathematics with disciplinary approach.

1.2.1.4.2 TEXT BOOKS:

1. Gyan Deepika:

Containing Language Hindi, environmental studies, SUPW, Numeracy and Health and Hygiene in the integrated form is covered in first six months. Its contents cover first three units of the course prescribed in the curriculum.

2. Hindi - 1:

Covering the next four units (IV to VII) of the curriculum contains language, environmental studies, natural science, SUPW, Health and Hygiene in the integrated form and is covered in next six months.

3. Hindi - II:

Containing the concepts of linguistic skill, sociological aspects (History, Civics, economics and Geography) Natural science, SUPW, Health and Hygiene in the integrated form is covered in next one year. This book covers the contents of last four units of the curriculum (from VIII to XI).

4. Ganit - I:

Contains the topics on Mathematics in disciplinary approach and is covered in next six months. The contents of this book cover the next four units of the curriculum.

5. Ganit - II:

Containing the course on Mathematics prescribed in the last four units of the curriculum in disciplinary approach is covered in the last one year. The Rational study further reveals that neither a work book nor a supplementary reader has been prescribed for the use of NFE learners in Rajasthan.

1.2.1.5 The competencies developed through the aforesaid five Text Books prescribed for NFE programme are the same as prescribed for class V of the formal schools.

1.2.1.6 The Rational study further reveals that in addition to the aforesaid Text Books a set of thirty four books is also supplied to every NFE centre free of cost for learners by the SIERT, Rajasthan. The contents of these books deal with the problems and life situations of the NFE learners.

1.2.1.7 Besides the aforesaid Text Books the following Instructional and teaching material has also been devised for the effective use and guidance of the instructors and other NFE functionaries:

1.2.1.7.1 1. Training Manual: Anoupcharik Shiksha Anudeshak Preshikshan Manjusha-
Containing the course, training procedure, teaching methodology etc. is meant for providing guidance to the Teacher Trainers and instructors as well.

1.2.1.7.2 2. Teacher's guide - Anoupcharik Shiksha Sandarshika-
Contains concepts, objectives, aspects,

...573/-

teaching methodology, evaluation of learners' achievements, selection of instructors, role of supervisory staff, and NFE functionaries, maintenance of records at the NFE centre, periodical returns etc. for the effective use and guidance of all NFE functionaries.

1.2.1.7.3 3. Evaluation Device- Anoupcharik Shiksha Ekai Parakh Pustika:

for testing the knowledge, skill, competencies etc. developed by learners on covering the course contained in a unit.

1.2.1.7.4 4. Anoupcharik Shiksha Parichayika- An Introduction to NFE:

Contains the evaluation procedure, maintenance of records etc. for the guidance and any use of instructors.

1.2.1.8 The Rational study further reveals that no Hand book for teachers has been devised in Rajasthan for providing guidance to the instructors while organising teaching learning activities at the NFE centres.

1.2.1.9 TEACHING METHODS:

1.2.1.9.1 The curriculum devised for primary level of NFE programme is quite silent about teaching learning strategies. But various methods of teaching different subjects and components have been suggested in the aforesaid literature - devised by SIERT, Rajasthan. The instructors are expected to adopt anyone of them suiting to the needs and learning situations of the learners and learning materials.

1.2.1.10 EVALUATION OF THE PERFORMANCE OF NFE LEARNERS:

1.2.1.10.1 The Rational study reveals that the non formal education is free from the fear of examination and certification. The curriculum developed for primary level is also quite silent about it. But there is a provision for concurrent evaluation of the achievements of the learners at the initiation of the instructor, supervisor and parents through the oral tests, observation and behavioural changes of learners. The SIERT, Rajasthan has devised a book on unit-wise tests (Anaupcharik Shiksha Ekai Parakh Pustika) to assess the knowledge, skill and competencies developed by the learners after

..575/-

covering the contents of a particular unit. The instructor assesses the academic progress of his learners verbally and regularly and records their progress in a register maintained at the NFE Centre for this purpose. The supervisor evaluates the progress of the scholastic achievements of the NFE children and the NFE Centre at the time of his visit and submits his report to the District Education Officer every month. Besides that no system is prevalent for assessing the progress of the learners weekly, fortnightly or monthly. Moreover, no periodical tests, quarterly, half yearly or yearly examination, no standardized tests, no public examination is organised at the primary level of the NFE programme. The continuity of the learner at the NFE Centre is the basic measurement of his evaluation.

1.2.1.10.2 The Rational study further reveals that according to the standing order of the Directorate of Primary and Secondary Education, Rajasthan the facilities are provided to the learners for multiple entry into formal system of education after a test.

...576/-

1.2.1.11 GENERAL IMPRESSIONS ABOUT THE CURRICULUM:

1.2.1.11.1 On the basis of the Rational analysis of the curriculum the Rational study reveals that:

1. Although the objectives of the curriculum have relevance with the life style of the clientele and can cater to their needs and life situations, but they should be elaborated and related to the objectives of non formal education.

2. Specific aims and objectives should be mentioned with the contents of each unit of the curriculum.

3. Some teaching learning strategies from the NFE point of view should be suggested in the curriculum.

4. Evaluation procedure and certification should be mentioned in the curriculum at this stage without which no programme can be effective.

...577/-

1.2.1.12 THE FINDINGS OF THE EMPIRICAL EVALUATION STUDY ABOUT THE CURRICULUM:

1.2.1.12.1 The curriculum pursued at the NFE Centres does not meet the needs of the children.

1.2.1.12.2 It is not of any help to their psychological and mental growth.

1.2.1.12.3 Very little emphasis has been laid upon the vocational training.

1.2.1.12.4 There exists a wide gap between the concept and objectives of non formal education as a functional programme oriented for improvement of the life of the learners and actual transaction of the programme in the field

1.2.1.12.5 The programmes are rarely characterised by relevance, flexibility and variety.

1.2.1.12.6 Teaching leaning strategies and teaching methodology should be [illegible] curriculum.

1.2.1.12.7 The curric[illegible]ment is continuous and constant process. Hence, it should be revised, modified and reframed suiting to the needs and life situations of the learners.

1.2.1.13 INSTRUCTIONAL MATERIAL:

1.2.1.13.1 The Rational Evaluation study reveals that the curriculum devised by SIERT, Rajasthan for the primary level of NFE programme is covered in two years through the following five text books - first three on language, environmental studies, natural science, SUPW and Health and Hygiene in integrated form and two on Mathematics in disciplinary approach. The definite duration for covering the course contained in a particular text book has been allotted.

1. Gyan Deepika
2. Hindi- I
3. Hindi- II
4. Ganit - I
5. Ganit - II

1.2.1.13.2 The study further reveals that neither a work book nor a supplementary reader has been prescribed for primary level.

1.2.1.13.3 Besides the aforesaid Text Books the following instructional and teaching material has also been devised for the effective use and guidance of the

...579/-

(ii) Physical Sciences - (Physics, Chemistry & Biology)

(iii) Animal Kingdom

(iv) Matter- Mass and weight

(v) Minerals

(vi) Air and water supply

(b) Social Science

(i) Renaissance in European countries.

(ii) National movement for Indian independence in broad outlines only.

(iii) Indian constitution (Salient Features only)

1.2.1.13.6 The following suggestions have also been given:-

1. Specific objectives and learning outcomes should specifically be mentioned in the curriculum for each of its components.

2. The Text books should be revised integrating all the concepts of linguistic skill, sociological concepts, Natural science, socially useful productive work, Health and Hygiene and all the components of Mathematics.

3. The exercises given at the end of each lesson should contain objective based questions as

well as Essay type questions to develop free, and forceful expressions of the NFE children of 9-14 years Age group.

4. The instructional material should contain the problems related to Desert, hilly and tribal areas of Rajasthan.

...582/-

1.2.1.14 THE FINDINGS OF THE EMPIRICAL EVALUATION STUDY ABOUT THE INSTRUCTIONAL MATERIAL:

1.2.1.14.1 The present empirical evaluation study reveals that the course contained in all the five text books prescribed under Instructional material in the curriculum is too heavy to be covered within the prescribed period and take much more time than allotted for the completion.

1.2.1.14.2 The study further reveals that the text books prescribed for the use of NFE children contain the course beyond their comprehension and they (NFE children) feel a great deal of difficulties in comprehending the contents.

1.2.1.14.3 The empirical evaluation study further suggests that either the contents of the text books should be modified according to the mental development of NFE children or the duration of the period allotted for covering the course contained in the text books should be increased.

1.2.1.15 METHODS OF TEACHING:

1.2.1.15.1 The Rational evaluation study reveals that various methods of teaching themes, topics and concepts of various subjects - literacy, numeracy, social awareness, natural science, Environmental studies, socially useful productive work (SUPW), Health and Hygiene and other course contents of the curriculum prescribed for the NFE programme have been suggested in the following Text books and literature developed under the auspices of SIERT, Rajasthan:

1. Training Manual- Anoupcharik Shiksha Anudeshak Prashikshan Manjusha.
2. Teacher's Guide - Anoupcharik Shiksha Sandarshika (developed by the Directorate of Adult Education, Rajasthan).
3. A book on unitwise test (Evaluation Material)- Anoupcharik Shiksha Ekai Parakh Pustika.
4. An Introduction to NFE programme - Anoupcharik Shiksha Parchayika.
5. Five Text Books.

1.2.1.15.2 The curriculum devised by SIERT, Rajasthan for NFE programme for primary level is quite silent about teaching methodology and teaching learning strategies.

1.2.1.15.3 The instructors are very well made acquainted with the following Methods of teaching to be adopted for the effective teaching of different subjects through six days' inservice training programme:

1. Group discussion
2. Drill Method
3. Descriptive method
4. Lecture method
5. Story telling
6. Play way method
7. Question and answer method
8. Observation
9. Activity method or Learning by doing
10. Demonstration method

1.2.1.15.4 The instructors may adopt any one of them according to the suitability, needs and learning situations of the learners.

1.2.1.15.5 The Rational evaluation study further reveals that in order to make the teaching methods more relevant to the needs of the clientele the following suggestions should be implemented:

(i) The specific methods of teaching themes, topics and concepts of various subjects should very specifically be mentioned in the curriculum prescribed for the primary level of the NFE programme.

(ii) In the text books also specific methods of teaching should be given for teaching each lesson for the guidance of the instructors.

(iii) The teacher's Hand book should be devised for providing adequate guidance to the instructors for the effective use of teaching methodology.

(iv) The teaching kits should be developed for the effective use of instructors.

(v) The learning packages should be prepared for encouraging self-learning in NFE children.

(vi) Programme learning and activity methods should be introduced suiting to the needs and learning situations of the learners.

...586/-

(vii) Multi-media for teaching should be utilised.

1.2.1.15.6 THE FINDINGS OF EMPIRICAL EVALUATION STUDY:

1.2.1.15.6.1 The present empirical evaluation study reveals that the curriculum developed for the primary level of NFE programme by SIERT, Rajasthan is quite silent about the teaching methodology and teaching strategies.

1.2.1.15.6.2 The study further reveals that 75% instructors possess very low academic qualification (of upto Middle standard).

1.2.1.15.6.3 Though the instructors are acquainted with various methods of teaching to be adopted while teaching different themes, concepts and topics of different subjects through short term inservice training for six days' duration, but it is quite inadequate and insufficient and does neither compensate their low and poor academic qualification nor makes them professionally sound.

1.2.1.15.6.4 The study further reveals that besides text books prescribed for primary level of NFE programme no other literature - Training Manual, Teacher's guide. Book on unitwise test, an Introduction to NFE programme etc. containing the various methods of teaching and teaching strategies is supplied to the instructors.

1.2.1.15.6.4.1 Moreover, it is very alarming and distressing that even the curriculum; which is a very important teaching learning device, does not reach the hands of instructors. Consequently they have to face a lot of difficulties and problems in curriculum transaction and in organising teaching learning activities at the NFE Centres.

1.2.1.15.6.5 The study further reveals that due to ignorance about the appropriate methods of teaching, non-availability of literature on teaching methodology and in absence of adequate academic and pedagogical guidance from the supervisors and other administrative authorities the instructors find it very

difficult to adopt a suitable method for teaching a particular theme or concept of some subject and are compelled to adopt any traditional method; which reflects the teaching very adversely and ultimately results in poor performance of the NFE learners.

1.2.1.15.7 SUGGESTIONS:

In order to develop competencies for the successful curriculum transaction and effective and efficient organisation of teaching learning activities at the NFE centres the empirical evaluation study offers following suggestions:-

1. The adequate and sufficient knowledge should be imparted to the instructors for the most appropriate and suitable use of various methods of teaching to teach different themes, concepts, topics of different subjects through inservice training; for which the duration of the present in-service training should be increased for 6 days to 15 days.

...589/-

2. The refresher course should be organised for at least six days' duration every year to solve the problems faced by the Instructor in curriculum transaction and effective organisation of teaching learning activities.

3. The instructors should be oriented in the latest developments of NFE programme particularly in the latest teaching methodology, teaching learning strategies and teaching techniques.

4. In order to develop self-learning among NFE children the audio-visual aids including latest developed multi-media approaches should be provided.

5. The teacher's hand book should be devised for providing adequate academic and pedagogical guidance.

6. The SIERT, Rajasthan should take immediate and appropriate steps for supplying the following literature on Teaching methodology, teaching learning strategies etc. :

   (i) Curriculum devised for primary level of NFE programme duly modified and revised incorporating the specific methods of

teaching themes, concepts and topics of various subjects.

(ii) Text books - duly revised and modified integrating all the subjects of Language, Mathematics, Environmental studies, Natural sciences, socially useful productive work, Health and Hygiene and incorporating specific methods of teaching for each lesson for the guidance of instructors.

(iii) Training Manual - Anaupcharik Shiksha Anudeshak Prashikshan Manjusha.

(iv) Teacher's Guide - Anaupcharik Shiksha Sandarshika.

(v) Evaluation Device- Book on unitwise Tests (Anaupcharik Shiksha Ekai Parak Pustika)

(vi) An Introduction to NFE programme - Anaupcharik Shiksha Parichayika.

7. The teaching kits should be developed for the effective use of instructors.

8. The self-learning packages should be prepared for encouraging self-learning in NFE children.

9. Programme learning and activity methods should be introduced suiting to the needs and learning situations of the learners.

10. The frequent, effective academic and pedagogical guidance should be provided to the instructors by the supervisors to develop the competencies in respect of contents of the courses prescribed in the curriculum and perfect knowledge of teaching methodology for teaching various themes, concepts and topics of different subjects.

1.2.1.16 TRAINING PROGRAMME AND PERSONNEL:

1.2.1.16.1 The Rational Evaluation study reveals that In-service Training is a pre-requisite condition for instructors, supervisors, Assistant Project Officer and other NFE field functionaries.

1.2.1.16.2 The SIERT, Rajasthan is the sponsoring agency for organising training programme for

various functionaries of the NFE programme.

1.2.1.16.3 The training manual - Anaupcharik Shiksha Manjusha devised by SIERT, contains detailed instruction, course content and the procedure for organising inservice training.

1.2.1.16.4 The inservice training programme for instructors is organised at Block level through the District Education Officer and trained resource persons for six days' duration.

1.2.1.16.5 The SIERT, Rajasthan organises the inservice training programme for supervisors, A.P.Os and all other NFE field functionaries at its own level on the basis of the course contents specified for instructors with certain modification.

1.2.1.16.6 NATURE OF INSERVICE TRAINING PROGRAMME:

1.2.1.16.6.1 TALKS OR LECTURES:

(a) Fifteen talks or lectures are delivered on need, concept, philosophy, principles and objectives of NFE programme and its curriculum.

...593/-

(b) Introduction to text books and their course contents, teaching methodology for different subjects, evaluation technique, motivation of technique for enrolment of out-of-school children including dropouts and depriveds, and their retention at NFE centre till the entire course prescribed for primary level is completed.

(c) Community participation and its involvement for the successful functioning of NFE Centres.

(d) Talks on probable difficulties faced in curriculum transation.

1.2.1.16.6.2 DEMONSTRATION OF LESSONS:

Demonstration lessons on various subjects - Language, Mathematics, environmental studies, natural science etc. are organised for guidance.

1.2.1.16.6.3 PRACTICAL WORK:

The following area of practical work is covered during six days inservice training period:

(a) Group Work

To prepare yearly unit plan and teaching aids.

(b) Maintenance of Records:

Intensive practical training is imparted for

the maintenance of records pertaining to the attendance of learners, unit-wise evaluation, progress of learners pertaining to sholastic achievements accounts of the NFE centre etc.

(c) Survey work:

To find out the non-enrolled children of 9-14 years age group.

(d) Practical training for SUPW:

In order to achieve the vocational objectives the practical training of the activities related to SUPW is imparted.

(e) Personal contact with various agencies:

For community participation and community involvement for running the NFE centre successfully.

(f) Community songs:

To achieve national objectives as laid down in the curriculum. Approximately 75% instructors, supervisors and Assistant Project Officers have been trained so far.

1.2.1.16.7 SUGGESTIONS AND RECOMMENDATIONS:

1.2.1.16.7.1 The Rational evaluation study reveals that in order to make the inservice training more

effective the following suggestions should be carried out:

1. The duration of the period of the inservice training should be increased from six days to fifteen days.
2. Refresher course should be organised every year for instructors and supervisors for six days' duration.
3. More emphasis should be laid on individual training.

1.2.1.16.8 THE FINDINGS OF EMPIRICAL EVALUATION STUDY:

1.2.1.16.8.1 The present empirical evaluation study reveals that the inservice training oriented to the specific needs of the instructors has considerably impact upon them, yet it is quite inadequate and insufficient and does not compensate their low academic qualification.

1.2.1.16.8.2 The study further reveals that more than 50% instructors have poor knowledge of the course contents as well as teaching methodology. Consequently they have to face a great deal of difficulties in curriculum transaction and in

...596/-

latest developments, trends and tendencies of the NFE programme and teaching methodology to solve their problems faced during curriculum transaction and organisation of teaching learning activities at the NFE centres.

3. The use of multi-media in the learning process and use of latest educational technology should be taught to the instructors.

4. Due emphasis should be laid upon the practical aspects of the training.

5. More emphasis should be given to individual training.

6. The training should be participatory based on the needs of the instructors. The problems like persuading the parents to send their out-of-school children to NFE centres, to organise activities, to sustain the motivation of learners, to deal with the problem of dropouts, enrolment of the girls to NFE centre and to adopt a different methodology in teaching the text books should be given priority. As a matter of fact the training imparted to the under-qualified instructors should compensate their lower qualification.

...598/-

organising the teaching learning activities at the NFE Centres.

1.2.1.16.8.3 The study further reveals that the course prescribed for the inservice training is too heavy to be covered within six days.

1.2.1.16.8.4 Hence, following suggestions are offered for implementation:

1.2.1.16.8.5 SUGGESTIONS

1. The duration of the period of six days allotted for the inservice training should be increased to fifteen days for imparting intensive training in teaching methodology, evaluation technique, maintenance of records and periodical returns, motivation technique for enrolment of out-of-school children and their retention, communicative skill and community participation and involvement for the successful functioning of the NFE centre.

2. Refresher course for six days' duration should be organised every year to orient the instructors and supervisory staff with the

7. The training for supervisors,A.P.Os. and other supervisory staff should also be modified according to the needs. The supervisor and APO should also be participants of the training organised for instructors.

1.2.1.17 PROCEDURE OF PUPIL'S EVALUATION:

1.2.1.17.1 The Rational Evaluation study reveals that the Non-formal Education is free from the fear of Examination and certification. Though there is no provision for formal evaluation at the primary level as that of formal examination, yet there is a concurrent evaluation process at the intimation of the NFE instructor, supervisor, and parents through oral, observation and change in behaviour of the learner.

1.2.1.17.2 The SIERT, Rajasthan has devised a book on unitwise tests - Anaupcharik Shiksha Ekai Parakh Pustika in accordance with the objectives (Academic, social, vocational and national) laid down in the curriculum for primary level and the course contained there in for the guidance of the instructors.

...600/-

1.2.1.17.3 Moreover, the following literature (Instructional material) developed by SIERT, Rajasthan and the Directorate of Adult Education, Rajasthan contains the guidelines and procedure for the evaluation of the academic achievements and attainments of the learners:

1. Teacher's Guide- Anaupcharik Shiksha Sandarshika
2. An Introduction to NFE - Anaupcharik Shiksha Parchayika.
3. Training Manual - Anaupcharik Shiksha Anudeshak Prashikshan Manjusha
4. Text Books - Prescribed for primary level.

1.2.1.17.4 Three on language, environmental studies, natural science, SUPW, Health and Hygiene in the integrated form, and two on Mathematics with disciplinary approach.

Except Gyan Deepika on Language Hindi for the beginners all the aforesaid four books contain exercises at the end of each lesson.

1.2.1.17.5 The curriculum devised for primary level is quite silent about the evaluation of the scholastic achievements of the learners.

1.2.1.17.6 The academic evaluation is mostly completed through unitwise tests and the social, vocational and national objectives are evaluated through observations.

1.2.1.17.7 NATURE AND TYPE OF EVALUATION:

1.2.1.17.7.1 The Instructor of the NFE Centre assesses the academic progress of his learners verbally at the spot and regularly and records his impressions about their progress quarterly, which helps him in framing teaching strategies and assessment of pupil's achievements.

1.2.1.17.7.2 The continuity of the pupil at the NFE centre is his basic measurement and the centre's evaluation.

1.2.1.17.8 SCHEME OF EVALUATION OF PUPIL'S ACHIEVEMENTS:

1.2.1.17.8.1 The Rational evaluation study further reveals that on the basis of the book on unitwise tests devised by SIERT the knowledge, skill and competencies developed by the learners and assessed on covering the contents of a particular unit for providing remedial teaching and framing of teaching learning strategies by the instructor.

1.2.1.17.8.2 The supervisor conducts the evaluation of the achievements of the learners and the progress of the centre at the time of his visit.

...602/-

1.2.1.17.8.3 Further, the education committee constituted at each NFE Centre also takes care of the performance of learners and the progress of the NFE Centre.

1.2.1.17.9 COVERAGE OF OBJECTIVES:

1.2.1.17.9.1 Academic evaluation is mostly conducted through the tools and techniques incorporated in the aforesaid literature developed by the SIERT and Directorate of Adult Education, Rajasthan and exercises given in the Text Books.

1.2.1.17.9.2 The social vocational and national objectives of the NFE programme are evaluated through observation.

1.2.1.17.10 TYPE OF EVALUATION:

1.2.1.17.10.1 The NFE evaluation of the academic achievements of the pupil as well as of the NFE centre is fully diagnostic as well as remedial.

1.2.1.17.11 CERTIFICATION:

1.2.1.17.11.1 The Rational evaluation study reveals that no formal or otherwise certificate is issued to a learner, who completes the entire course

...603/-

prescribed for primary level, but on the demand of the learner a note pertaining to the competencies developed is issued by the instructor; which has got no weightage.

1.2.1.17.11.2 However, facilities for multiple entry to formal schooling have been provided to the learners after a test in accordance with the standing order of the Directorate of Primary and Secondary Education, Rajasthan.

1.2.1.17.11.3 No certificate (formal or otherwise) is issued to the dropouts.

1.2.1.17.12 <u>EVALUATION OF THE NFE PROGRAMME IN RAJASTHAN:</u>

1.2.1.17.12.1 <u>SCHEME OF EVALUATION OF NFE PROGRAMME AND ITS FREQUENCY:</u>

1.2.1.17.12.2 The SIERT, Rajasthan takes care of the academic and general evaluation of the total NFE programme in the state through tools and techniques developed for the aforesaid purpose; whereas the Administrative and the organisational aspects are looked after by the Joint Director of Non-Formal Education, Rajasthan on behalf of the State Government and with the active

...604/-

cooperation of the District Education Officers and other functionaries.

1.2.1.17.13 TOOLS AND TECHNIQUES FOR EVALUATION OF NFE PROGRAMME:

1.2.1.17.13.1 The SIERT, Rajasthan has developed a yearly evaluation tool for the whole of NFE programme in Rajasthan, whereas, regular inspection and effective supervision by the Joint Director of NFE is the tool for the evaluation of NFE programme in Rajasthan. Evaluation aspect is the achievement of the learner and smooth running of this programme.

1.2.1.17.14 PERFORMAS AND PROCEDURE FOR KEEPING THE RECORD OF PUPIL'S ACHIEVEMENT AND THE PROGRESS OF NFE PROGRAMME :

1.2.1.17.14.1 The quarterly progress pertaining to the academic achievements of each learner is recorded by the instructor on the prescribed proforma at every NFE Centre.

1.2.1.17.14.2 The supervisor submits a detailed quarterly report of each NFE centre of his block stating the progress of the NFE Centre pertaining to the academic achievements of the learners and that of

...605/-

teaching learning situations and other aspects of the NFE Centre to the District Education Officer concerned.

1.2.1.17.14.3 The study further reveals that Monthly progress report of each NFE Centre is submitted by the Instructor to his supervisor on the prescribed proforma.

1.2.1.17.14.4 The consolidated monthly progress reports of all the NFE Centres of the block is submitted to the District Education Officer by the supervisor after due scrutiny.

1.2.1.17.14.5 The District Education Officer submits the monthly progress report of the NFE programme of his district to the Joint Director, Non-formal Education, Rajasthan with a copy to the Director, SIERT, Rajasthan, Udaipur.

1.2.1.17.14.6 The Block Development Officer also submits the monthly progress report of NFE programme of his block to the District Education Officer.

1.2.1.17.14.7 The Monthly progress Report of the NFE programme in the state is submitted to the State Government by the Joint Director of Non-Formal

...606/-

Education duly consolidated. The Monthly Progress Report presents a true picture of NFE programme in the State.

1.2.1.17.15 SUGGESTIONS AND RECOMMENDATIONS:

1.2.1.17.15.1 The Rational Study offers the following suggestions for necessary implementation:-

1. The instructor of NFE Centre may be empowered to issue a certificate to a learner about the academic achievements and the competencies developed by him on the completion of the entire course prescribed for primary level and due weightage should be given to it while seeking admission to formal schooling.
2. Some standardized tests for the assessment of social, adjustment, attitudes and habits developed by the NFE learners should be evolved under the auspices of the SIERT, Rajasthan.
3. A District level or Block level organisation may be set up for the evaluation of the pupils, who want to continue their education by seeking admission to formal schooling after the completion of the entire course prescribed for primary level.

....607/-

1.2.1.17.16 FINDINGS OF EMPIRICAL EVALUATION STUDY:

1.2.1.17.16.1 The present empirical evaluation study reveals that there is no provision for formal evaluation at primary level in NFE programme; but there is a provision for concurrent evaluation of the achievements of the learners at the initiation of the instructor, supervisor and parents through oral tests, observation and behavioural changes of learners.

1.2.1.17.16.2 The SIERT, Rajasthan has devised a book on unitwise tests 'Anaupcharik Shiksha Ekai Parakh Pustika' to assess the knowledge, skill and competencies developed by the learners after covering the contents of a particular unit for providing remedial teaching and framing teaching learning strategies by the instructor.

1.2.1.17.16.3 But the present empirical evaluation study reveals that no such book is made available to the instructors at NFE Centres.

1.2.1.17.16.4 The present study further reveals that 70% instructors are aware of the fact that the SIERT, Rajasthan has developed the following

...608/-

literature containing the tools, techniques and procedure to be adopted for the evaluation of the scholastic achievements of the NFE learners through the inservice training imparted to them for six days' duration.

1.2.1.17.16.5 But the study reveals that no such literature is made available to the instructors, which is very much surprising:

1 Training Manual - Anaupcharik Shiksha Anudeshak Prashikshan Manjusha

2. Teacher's Guide- Anaupcharik Shiksha Sandarshika

3. Evaluation Device - A book on unitwise tests. Anaupcharik Shiksha Ekai Parakh Pustika.

4. An Introduction to NFE - Anaupcharik Shiksha Parichayika.

1.2.1.17.16.6 Further the study reveals that the curriculum - the most important device on NFE programme for primary level, does not reach the hands of the instructors; which is very much alarming and distressing also.

...609/-

1.2.1.17.16.7 The study further reveals that the curriculum devised for NFE programme for the primary level is quite silent about evaluation procedure and evaluation technique.

1.2.1.17.16.8 The present empirical evaluation study further reveals that there is no system prevalent for assessing the progress of learners weekly, fortnightly or monthly.

1.2.1.17.16.9 Moreover, no periodical tests, quarterly, half yearly or yearly examination, no standardized tests, no public examination is organised at primary level of NFE programme.

1.2.1.17.16.10 Further, the instructors are quite ignorant of the technique of diagnostic testing and remedial teaching and framing teaching learning strategies.

1.2.1.17.16.11 The study further reveals that although the instructors are acquainted with the evaluation technique, diagnostic testing and remedial teaching during the short term inservice training for six days' duration, but no literature containing the aforesaid technique devised by SIERT is supplied to them.

...610/-

1.2.1.17.16.12 Moreover, due to lack of frequent and adequate academic and pedagogical guidance by the supervisors and other administrative authorities the instructors remain quite ignorant of the evaluation technique.

1.2.1.17.16.13 Further 75% instructors are academically under qualified (They possess the academic qualification upto middle standard).

1.2.1.17.16.14 No guidance academic as well as pedagogical is made available to them by the local formal school teachers in evaluation technique.

1.2.1.17.16.15 Under the aforesaid adverse conditions and uncongenial atmosphere devoid of all privileges of education the instructors organise teaching learning activities under complete darkness of ignorance. Consequently as the study reveqls, the standard of the performances of NFE children of the block Sri Nagar and Pisangan of District Ajmer has been affected very adversely in all the subjects for level I and level II respectively in comparison to the performances of the NFE children of other two blocks of the desert area of District Barmer.

....611/-

1.2.1.17.17 SUGGESTIONS :

1.2.1.17.17.1 The present empirical evaluation study offers following suggestions for developing the competency, skill and knowledge of the instructors in the evaluation technique, evaluation procedure for assessing the academic achievement and performance of NFE learners:-

1. The adequate and sufficient knowledge should be imparted to the instructors about the evaluation technique and evaluation procedure and for organising unitwise tests to assess the knowledge, skill and competencies developed by the learners on covering the course contained in a particular unit through organising the refresher course for atleast six days' duration for the instructors of the NFE Centres. This should be a regular feature for orienting the instructors every year.
2. The duration of the period of inservice training should be increased to 15 days to impart the exhaustive knowledge and to develop skill and competency in organising diagnostic testing and remedial teaching and framing teaching learning strategies.

...612/-

3. The frequent and sufficient academic and pedagogical guidance should be provided to the instructors by the supervisors in the evaluation technique and organising teaching learning activities very effectively and efficiently for which following steps may be taken up:-

i. The present norms of supervision should be modified and 20 to 25 NFE Centres should be allotted instead of fifty centres to a supervisor.

ii. Through school complex programme the services of the academically enlightened and professionally sound formal school teachers should be utilized for providing adequate academic and pedagogical guidance to the instructors.

iii. The services of the supervisors of formal education may also be utilised for this purpose.

4. The SIERT, Rajasthan should take immediate necessary steps for supplying the following literature containing the tools, techniques and procedure for evaluation.

...613/-

i. The curriculum duly modified and revised incorporating the evaluation techniques for assessing the competencies, skill and knowledge developed by NFE learners in various subjects.

ii. Text books duly revised and modified integrating all the subjects including Mathematics and incorporating the exercises on objective based and essay type questions at the end of every lesson.

iii. Training Manual

iv. Teacher's Guide

v. Evaluation Device (Book on unitwise tests)

vi. An Introduction to NFE programme.

CHAPTER - VIII

SUMMARY OF FINDINGS, SUGGESTIONS AND RECOMMENDATIONS

SUB-CHAPTER- I

1.1. BACKGROUND AND METHODOLOGY:

1.1.1. Rajasthan, though the second largest state, but poorest in literacy among the nine educationally backward states in the country, came into existence in 1956 as a result of integration of 19 princely states. Prior to independence the literacy percentage in the former province of Rajputana was miserably poor i.e. 5.51% in 1941.

1.1.2 Since integration and formation of Rajasthan the vigorous organised efforts have been made for p oviding educational facilities to all the children and for the expansion of education in the State. Consequently the literacy percentage was raised from 8.95 in 1951 to 24.39 in 1981, still Rajasthan has the lowest literacy rate in the country and the number of illiterates is rising every year. The percentage of female literacy is 11.42 and in rural area it is 5.48%, which is very much alarming. It is

...615/-

estimated that about 33.72 lac children of 6-14 years age group including 26.77 lac girls out of schools. Most of the out of school children are either deprived of the privilege of formal education or dropouts and belong to economically and socially backward class of the society : Scheduled Castes and Scheduled Tribes, mostly residing in rural, tribal, desert, hilly and slum areas. These depriveds and dropout children are either busy in productive pursuits or in domestic work through out the whole-day. The apathy of parents, their orthodoxy, traditions and social prejudices against the education of girls put hindrances and impediments to their education; situation is still worse in case of scheduled caste, scheduled tribe girls. The provision of scholarships, free uniforms and books and a number of other incentives has not motivated their parents to send them to schools.

1.1.3 The aforesaid state of affairs relating to education leads to think about the adoption of some alternative approach to achieve universalisation of elementary education by 1990. This approach has to be made more flexible and non-formal, so as to cover all the leftouts.

..616/-

1.2 DEVELOPMENT OF NON-FORMAL EDUCATION IN THE STATE:

1.2.1 On the recommendation of the Central Advisory Board of Education in 1973 the Government of Rajasthan took initiative and formulated an experimental scheme of non-formal education and started 180 centres of part time NFE in six major district in 1974, covering 5400 children of the age group of 8-20 years.

1.2.2. During 1976-77 it was extended to six more districts. By the end of 1977 the NFE programme was running in about 1000 centres of 16 districts out of 26 districts of Rajasthan, covering about 24000 (Twenty four thousand) beneficiaries.

1.2.3 The voluntary organisations were also involved on 90% grant-in-aid basis. Detailed instructions regarding the programme, content, instructional material, instructional and institutional management, implementation strategy, administration and supervision and financial pattern were also issued to them.

1.2.4 Since 1975-76 Rajasthan has witnessed a steady growth of NFE programme. By the end of 1984-85: 10242 NFE Centres were running, including 643

NFE Centres allotted to voluntary agencies, covering 3,45,236 children including 62,952 girls at primary level.

1.2.5 The implementation of the centrally sponsored experimental project of NFE has proved to be a successful alternative strategy to formal education to cater to the needs of depriveds and dropout children.

1.3 **METHODOLOGY OF EVALUATION:**

1.3.1 **PURPOSE:**

1.3.1.1 At the initiation of the Ministry of Education, Government of India, National Institute of Educational Planning and Administration, New Delhi undertook the evaluation study of all the important aspects. Academic, Administrative, Physical and Financial of the centrally sponsored experimental project of NFE programme to identify the areas of success and failure andto suggest fresh approaches for restructuring the programme being undertaken in a big way in the VIIth Five Year Plan.

1.3.1.2 The present evaluation study of academic aspects has been undertaken under the auspices of National Council of Educational Research and Training,

....618/-

New Delhi under the Department of Pre-School and Elementary Education. It was decided that the study should not merely be a methodological exercise, but an action related and action oriented research exercise.

1.3.2. OBJECTIVES:

1.3.2.1 The objectives of the present evaluation study are given below:

To analyse and evaluate the curriculum, Instructional material, teaching methodology, Training programme for instructors, supervisors and other NFE functionaries and to compare pupil attainment with that of the achievements of pupil in the formal education programme.

1.3.3 SCOPE (COVERAGE) OF THE STUDY:

1.3.3.1 The study has covered the NFE curriculum, Instructional materials, teaching-learning strategies, training of personnel at various levels, supervision and monitoring and pupil evaluation.

1.3.4 APPROACH AND METHODOLOGY:

1.3.4.1 The procedure adopted in this evaluation study has included both rational and empirical approaches. The rational study of all the aforesaid aspects was

already conducted and report was submitted.

1.3.5 DESIGN:

1.3.5.1 For the purpose of the evaluation study the same sample design has been taken up as was undertaken by NIEPA in respect of the districts, blocks, NFE centres run by the Government as well as by voluntary agencies.

1.3.5.2 Four formal primary schools - one from each block were also selected at random representing the area.

1.3.5.3 Two parents and two learners were selected from each NFE centre for opinion survey.

1.3.5.4 Two employers ought to have been selected from each block as per sample design; but only two employers could be available - one from each block of Pisangan and Sri Nagar of District Ajmer.

1.3.5.5 All Instructors and supervisors were covered under this study for responding to the questionnaires meant for them.

1.3.5.6 Four Teacher Trainers from each sample district were also selected for responding to the questionnaires meant for them.

...620/-

1.3.6 COLLECTION AND COMPILATION OF DATA:

1.3.6.1 For the present study of empirical evaluation the data were collected both for primary and secondary sources for which the following tools and techniques were adopted:-

i. Interview schedules for learners
ii. Interview schedules for parents
iii. Interview schedules for employers
iv. Questionnaires for Instructors
v. Questionnaires for supervisors
vi. Questionnaires for Teacher Trainers
vii. Rating Chart for NFE Centres
viii. Achievement Tests in
  i. Language Hindi for both the levels
  ii. Mathematics for both the levels
  iii. Environmental studies for both the levels
  iv. Natural science for level II only.

1.3.7 ORGANISATION OF FIELD WORK:

1.3.7.1 In order to administer the achievement tests, fill in interview schedules, Questionnaires etc. and Rating charts for six investigators (One for each block and voluntary agency) were selected. A three days' orientation programme

was organised for them to impart practical training in administering tests etc. assessing the response sheets, compiling the scores on Master plans etc.

1.3.8 PROBLEMS, DIFFICULTIES AND LIMITATION OF METHODOLOGY:

1.3.8.1 The learners were not available in adequate number.

1.3.8.2 NFE children faced difficulties in appearing in written tests.

1.3.8.3 Lack of co-operation from some field functionaries.

1.3.8.4 NFE Centres run by voluntary agencies were closed on 31st March, 1986 i.e. at the close of the financial year. However, with personal persuation and efforts the arrangement for re-opening them on the day of tests was made.

...622/-

SUB-CHAPTER - II

2.1 CURRICULUM IN TRANSACTION AT NFE CENTRES:

2.1.1 TYPE OF CURRICULUM USED IN THE STATE:

2.1.1.1 The State Institute of Educational Research and Training devised a separate curriculum for NFE programme in 1980-81 for primary level in accordance with the objectives, concepts, philosophy and principles of the NFE. It has relevance with the curriculum of formal system of education and its standard is also at par with it. Its contents have been derived from the needs, life situations and styles of learners.

2.1.2 THE SALIENT FEATURES OF THE CURRICULUM:

2.1.2.1 The contents of the curriculum have academic, social, vocational and national concepts and cover language - (Mother tongue - Hindi), Mathematics, Environmental studes, socially useful productive work, Health and Hygiene all in integrated from except Mathematics with disciplinary approach. Thus the curriculum developed for primary level is partly integrated and partly on disciplinary approach.

2.1.2.2 The duration for covering the course prescribed in the curriculum is two years with two hours daily,

regular and intensive teaching learning at any time most convenient to the learners.

2.1.3 FORMAT OF THE CURRICULUM:

2.1.3.1 The format of the curriculum is totally on non-formal style. Formal styles like specific objectives, strategies, evaluation and certification etc. have been avoided. All disciplines are woven unitwise. The institutes of society have been given due importance. Local, regional and national life is dealt with alaborately. Socially useful productive work (SUPW) has been given vocational bias. The curriculum is need based and according to the local environment and vocation of learners.

2.1.4 CURRICULUM AND INSTRUCTIONAL MATERIAL:

2.1.4.1 The contents of the curriculum having academic, social, vocational and national concepts is covered through five text books developed by SIERT, Rajasthan - three on language, environmental studies, natural science, SUPW and Health and Hygiene in integrated form and two on Mathematics with disciplinary approach. The text books are

covered within the definite duration of two years.

2.1.4.2 Moreover, the competencies developed through the aforesaid instructional material are the same as prescribed for class V in formal schools .

2.1.4.3 Neither a work book nor a supplementary reader has been prescribed at primary level in Rajasthan for the use of NFE learners.

2.1.5 TEACHING METHODOLOGY:

2.1.5.1 The curriculum devised for primary level is quite silent about the teaching learning strategies. However, various methods of teaching different subjects and components have been suggested in the teaching material developed by SIERT and the Directorate of Adult Education, Rajasthan. The instructors are expected to adopt them suiting to the needs and learning situations.

2.1.6 EVALUATION OF THE ACADEMIC ACHIEVEMENTS OF NFE LEARNERS:

2.1.6.1 The Non-formal Education is free from the fear of examination. The curriculum devised for primary level is also quite silent about the evaluation

technique and procedure. But there is a provision for concurrent evaluation of the achievements of NFE learners at the initiation of the instructor, supervisor and parents through oral tests, observations and behavioural changes of learners.

The continuity of the learner at the NFE centre is the basic measurement of his evaluation.

2.1.7 GENERAL IMPRESSIONS ABOUT THE CURRICULUM:

2.1.7.1 The curriculum devised for primary level of NFE programme has several deficiencies, which are enumerated below:-

1. The curriculum pursued at the NFE Centres does not fulfil the needs of the children.
2. It does not provide any help to their psychological and mental growth.
3. There exists a wide gap between the concepts and objectives of NFE as a functional programme oriented for the improvement of the life of the learners and actual transaction of the programme in the field.
4. Very little emphasis has been laid upon the vocational training.

...626/-

5. The programmes are rarely characterised by relevance flexibility and variety.
6. The curriculum is quite silent about the teaching methodology and teaching learning strategies.
7. It is also quite silent about evaluation techniques and evaluation procedures.
8. No specific objectives have been stated in the curriculum to be achieved through the contents of the courses prescribed for various subjects.
9. The objectives of NFE are partly fulfilled through the contents of the course prescribed in the syllabus.

2.1.8. SUGGESTIONS FOR IMPROVEMENT:

2.1.8.1 The specific aims and objectives and learning outcomes should very specifically be mentioned in the curriculum for each of its components.

2.1.8.2 Although the objectives of the curriculum have relevance with the life style of the clientele and can cater to their needs and life situations, but they should be elaborated and related to the objectives of Non-formal Education.

...627/-

2.1.8.3 Specific methods of teaching themes, topics and concepts of various subjects should very specifically be mentioned in the curriculum prescribed for primary level.

2.1.8.4 Evaluation procedure and certification should be mentioned in the curriculum at this stage, without which no programme can be effective.

2.1.8.5 Curriculum development is a continuous and constant process. Hence, the present curriculum devised in 1980-81 should be revised, modified and reframed integrating all the subjects - Language - Hindi, Environmental studies, Natural science, Mathematics, SUPW and Health and Hygiene and incorporating specific methods of teaching themes, concepts and topics of various subjects as well as evaluation technique and evaluation procedure for assessing the competencies, skill and knowledge developed by NFE learners in various subjects.

2.2 <u>INSTRUCTIONAL MATERIAL:</u>

2.2.1 From the perusal of preceding chapters it is quite evident that the curriculum devised by SIERT for primary level of NFE programme

...628/-

has academic, social, vocational and national concepts and is covered in two years through the following instructional material consisting of five text books prepared in accordance with the objectives laid down and course contents prescribed therein.

2.2.2 The definite duration of period for covering the course contained in a particular text book has also been allotted.

TEXT BOOKS

2.2.2.1 GYAN DEEPIKA: Containing language Hindi, environmental studies, numeracy, SUPW and health and hygiene in integrated form is covered in first six months having three units of the course prescribed in the curriculum.

2.2.2.2 HINDI- I: Covering next four units (IV to VII) of the curriculum contains language, environmental studies, natural science, SUPW, Health and Hygiene in integrated form is covered in next six months.

2.2.2.3 HINDI- II: Containing the concepts of linguistic skill, sociological aspects,

...629/-

natural science, SUPW, Health and Hygiene in the integrated form is covered in next one year. This book contains the course of last four units of the curriculum.

2.2.2.4 GANIT - I: Containing the topics on Mathematics in disciplinary approach is covered in next six months. The contents of this book cover the course of next four units of the curriculum.

2.2.2.5 GANIT- II: Containing the course on Mathematics prescribed in the last four units of the curriculum in disciplinary approach is covered in the last one year.

2.2.2.6 Besides the aforesaid five text books neither a work book nor a supplementary reader has been prescribed for the use of NFE learners at primary level in Rajasthan.

2.2.2.7 The competencies developed through the aforesaid instructional material are the same as prescribed for class V in formal schools.

2.2.2.8 In addition to the above a set of thirty four books is also supplied to every NFE centre

....630/-

for learners by SIERT, Rajasthan. The contents of the aforesaid books deal with the problems and life situations of the NFE learners.

2.2.2.9 The instructional material consisting of text books slates, pencils, exercise books etc. is supplied to the NFE children free of cost.

2.2.3 <u>TEACHING MATERIAL :</u>

2.2.3.1 Besides the aforesaid text books the following instructional and teaching material has also been devised for the effective use and guidance of the instructors and other NFE functionaries.

1. <u>TRAINING MANUAL:</u> Anoupcharik Shiksha Anudeshak Prashikshan Manjusha - Containing the course and training procedure, teaching methodology, evaluation technique and procedure etc. is meant for providing guidance to the teacher trainers and instructors as well.
2. <u>TEACHER'S GUIDE</u>: Anoupcharik Shiksha Sandarshika - Contains concepts, aspects, objectives of NFE, teaching methodology, evaluation techniques, selection of

instructors, role of supervisory staff and NFE functionaries maintenance of records etc. for the effective use and guidance of all.

3. EVALUATION DEVICE: A book on unitwise Tests - Anoupcharik Shiksha Ekai Parakh Pustika for testing the knowledge skill, competencies etc. developed by the learners on covering the course contained in a particular unit.

4. AN INTRODUCTION TO NFE: Anoupcharik Shiksha Parichayika - Contains the evaluation procedure, teaching methodology, maintenance of records etc.

2.2.3.2 The study reveals that no hand-book has been devised in Rajasthan for the guidance and effective use of instructors, while organising teaching learning activities at the NFE Centre.

2.2.3.3 The study further reveals that except Gyan Deepika all the aforesaid four text books contain sufficient number of exercises at the end of each lesson, which fully cover the objectives of such lessons as laid down in the curriculum.

2.2.3.4 The study further reveals that the contents of the Text books have academic, sociological, vocational, psychological, linguistic, physical and national concepts and cover language, Mathematics, environmental studies, socially useful productive work and Health and Hygiene.

2.2.3.5 Moreover, the text books cover the objectives as laid down in the curriculum with certain exceptions - for which following suggestions are offered:-

2.2.4 SUGGESTIONS:

2.2.4.1 The following components of Natural science and social science should be added to the existing instructional material in the integrated form to cover the objectives laid down inthe curriculum and course contents prescribed in it.

a) Under Natural Science

i. Human Physiology

ii. Animal Kingdom

iii. Physical sciences - Physics, Chemistry and Biology.

iv) Matter - Man and weight

v) Minerals

vi) Air and Water supply

b) <u>Under Social Sciences:</u>

i) Renaissance in European countries

ii) National Movement for Indian Independence in broad outlines only.

iii) Indian constitution (salient features only)

2.2.4.2 The following suggestions have also been given :-

1. Specific objectives and learning outcomes should specifically be mentioned in the curriculum for each of its components.

2. The exercises given at the end of each lesson should contain objective based questions as well as Essay type questions to develop free and forceful expressions of the NFE children of 9-14 years age group.

3. The instructional material should contain the problems related to desert, hilly and tribal areas of Rajasthan.

2.2.5 DEFICIENCIES AND WEAK POINTS OF THE INSTRUCTIONAL MATERIAL:

2.2.5.1 The present empirical evaluation study reveals that the course contained in all the five text books prescribed under instructional material in the curriculum is too heavy to be covered within the prescribed period and take much more time than allotted for completion.

2.2.5.2 The course contents of the Text books is beyond the comprehension of the NFE children, who feel a great deal of difficulties in comprehending the contents.

Consequently the academically under qualified as well as professionally unsound instructors face a lot of problems in curriculum transaction and a great deal of difficulties in organising teaching learning activities at the NFE Centre.

2.2.6 SUGGESTIONS FOR IMPROVEMENT:

2.2.6.1 The text books should be revised and modified integrating all the concepts of linguistic skill, sociological concepts,

Natural sciences, SUPW, Health and Hygiene and all the components of Mathematics and incorporating the specific methods of teaching for each lesson.

2.2.6.2 The contents of the text books should be modified according to the mental development of NFE children or the duration of the period allotted for covering the course should be increased.

2.3 METHODS OF TEACHING:

2.3.1 From the perusal of preceding chapters it is quite evident that various methods of teaching themes, topics and concepts of various subjects - Language, Mathematics, SUPW, Environmental Studies, Natural Science, Health and Hygiene and other contents of the curriculum have been suggested in the Text Books and other literature (Teaching material developed under the auspices of SIERT, Rajasthan:

1. Training Manual - Anoupcharik Shiksha Anudeshak Prashikshan Manjusha
2. Teacher's Guide - Anoupcharik Shiksha Sandarshika
3. An Introduction to NFE - Anoupcharik Shiksha Parichayika.
4. Text Books.

2.3.2 The curriculum devised for primary level of NFE programme by SIERT, Rajasthan is quite silent about teaching methodology and teaching learning strategies.

2.3.3 During six days inservice training the instructors are acquainted with the following

methods of teaching different subjects and they are expected to adopt them according to their suitability, needs and learning situations of the learners:

1. Group discussion
2. Drill Method
3. Descriptive method
4. Demonstration method
5. Lecture method
6. Story telling method
7. Play way
8. Question and Answers
9. Activity method
10. Observations.

2.3.4 **WEAK POINTS OF THE PROGRAMME:**

2.3.4.1 The underqualified academically (75% instructors possess the academic qualification upto Middle standard) and professionally unsound instructors face a lot of difficulties and problems in curriculum transaction and in organising teaching learning activities at the NFE Centre due to inadequate and insufficient knowledge of Methods of teaching.

....638/-

2.3.4.2 Besides text books no other literature containing the different methods of teaching is made available to them which is very discouraging.

2.3.4.3 It is very alarming and distressing that even the curriculum does not reach the hands of the instructors.

2.3.4.4 The study further reveals that no academic and pedagogical guidance is provided by the supervisors and other Administrative authorities and NFE functionaries particularly about the teaching methodology and teaching learning strategies.

2.3.4.5 Due to ignorance about the methods of teaching the instructors are compelled to adopt any traditional method, which reflects their teaching very adversely and ultimately results in poor performance of NFE children.

2.3.5 SUGGESTIONS FOR IMPROVEMENT:

2.3.5.1 The adequate and sufficient knowledge should be imparted to the instructors about the appropriate and suitable use of various methods

of teaching through comprehensive inservice training.

2.3.5.2 The refresher course should be organised every year for at least six days' duration to solve the problems of instructors in respect of methods of teaching.

2.3.5.3 The SIERT, Rajasthan should take immediate and adequate steps for the supply of teaching material developed on teaching methodology and teaching learning strategies to the instructors.

2.3.5.4 The Hand Book should be devised and supplied to the instructors.

2.3.5.5 The teaching kit should be developed for the effective use of instructors.

2.3.5.6 The self-learning packages should be developed and supplied to the NFE Centres for encouraging self-learning in children.

2.3.5.7 Programme learning and Activity methods should be introduced.

2.3.5.8 The frequent, effective and adequate academic and pedagogical guidance should be provided by

...640/-

the supervisors to develop the competencies of instructors in respect of contents as well as teaching methodology.

2.3.5.9 Through school complex programme the services of the academically enlightened and professionally sound formal school teachers should be utilised for providing academic and pedagogical guidance to the instructors.

2.3.5.10 Multi-media for teaching should be utilised.

2.4 TRAINING PROGRAMME AND PERSONNEL:

2.4.1 From the perusal of the preceding chapters it is quite evident that the SIERT, Rajasthan, the sponsoring agency, organises the inservice training for instructors at block level through the District Education Officer and for supervisors, A.P.O. and other NFE functionaries at its own level on the basis of the course contents and procedure provided in the Training Manual - Anoupcharik Shiksha Anudeshak Prashikshan Manjusha.

2.4.2 The inservice training programme consists of fifteen talks on concept, philosophy, objectives, principles of NFE programme, introduction to text books and their course contents, teaching methodology, evaluation technique, motivation technique for enrolment of out of school children and their retention, community participation and involvement for the successful functioning of NFE centres etc.

2.4.2.2 The demonstration lessons on different subjects are also organised during the aforesaid training.

....642/-

2.4.2.3 The practical work on maintenance of records, group work, survey, SUPW etc. is also included in the training programme. In brief the inservice training imparted is task - based and competencies oriented.

2.4.3 WEAK POINTS OF THE INSERVICE TRAINING PROGRAMME:

2.4.3.1 The present empirical evaluation study reveals that the training programme is quite insufficient and inadequate and does not compensate the low academic qualifications of the instructors.

2.4.3.2 The study reveals that more than 50% instructors have poor knowledge of the course contents of the Text books as well as teaching methodology evaluation technique and lack in communicative skill. Consequently they have to face a great deal of difficulties and problems in curriculum transaction and in organising teaching learning activities, recreational programme etc. at the NFE Centres.

2.4.3.3 The course contents of the training programme is too heavy to be covered within six days.

2.4.4 SUGGESTIONS FOR IMPROVEMENT

2.4.4.1 The duration of inservice training should be increased to fifteen days for imparting intensive training in teaching methodology, course contents of text books, evaluation procedure and technique, development of communicative skill, maintenance of records, motivation technique, community participation and involvement, enrolment of out of school children and their retention.

2.4.4.2 Refresher course for at least six days duration should be organised every year for instructors as well as supervisors to solve the problems faced in curriculum transaction and to orient them in the latest teaching techniques etc. use of multi-media in learning process and educational technology etc.

2.4.4.3 The Block Development Officers and other Administrative officers and NFE field functionaries should also be oriented in refresher course for extending their co-operation to the instructors and providing academic and pedagogical guidance to them from time to time for the successful and effective functioning of NFE Centres.

....644/-

2.4.4.4 Due emphasis should be laid upon practical aspects and individual training.

2.4.4.5 The training programme and procedure should be modified, it should be participatory and need based, which should compensate the low academic qualifications of instructors.

2.4.4.6 The training programme for supervisors, A.P.Os. and other supervisory staff should also be modified according to their needs.

2.4.4.7 The supervisors and A.P.Os. should also be the participants of the training organised for instructors.

2.5 EVALUATION OF PUPIL'S ACHIEVEMENTS AND NFE PROGRAMME IN RAJASTHAN:

2.5.1 PROCEDURE FOR PUPIL'S EVALUATION:

Though the Non-formal Education is free from the fear of examination and certification, yet there is a concurrent evaluation process at the initiation of instructor, supervisor and parents through oral, observation and change in behaviour of the learners.

2.5.2 The SIERT, Rajasthan has devised a book on unitwise tests- 'Anoupcharik Shiksha Ekai Parakh Pustika' to assess the knowledge, skill and competencies developed by the learners on covering the course contents of a particular unit for training teaching learning strategies by the instructors.

2.5.3 The teaching material (Training Manual, Teacher's Guide, An Introduction to NFE etc.) devised by SIERT and the Directorate of Adult Education, Rajasthan contains the evaluation procedure and evalution techniques for the guidance of instructors etc.

...646/-

2.5.4 All the text books except Gyan Deepika contain the exercises at the end of each lesson.

2.5.5 The curriculum devised for primary level is quite silent about the evaluation technique and procedure.

2.5.6 The academic evaluation is mostly conducted through the unitwise tests and social, vocational and national objectives are evaluated through observation.

2.5.7 NATURE AND TYPE OF EVALUATION:

2.5.7.1 The instructor assesses the academic progress of his learners verbally and records regularly.

2.5.7.2 The supervisor conducts evaluation of the scholastic achievements of the learners and the progress of the NFE centre at the time of his visit.

2.5.7.3 The education committee constituted at each NFE centre also takes care of the performance of learners and progress of the NFE Centres.

2.5.8 CERTIFICATION:

2.5.8.1 The study reveals that no formal or otherwise certificate is issued to a learner, who completes

the course prescribed for primary level, but on the demand of the learner a note pertaining to the competencies developed is issued, but it has no weightage.

2.5.8.2 However, facilities for multiple entry to formal schooling have been provided after a test in accordance with the standing order of the Directorate of Primary and Secondary Education, Rajasthan.

2.5.8.3 No certificate (formal or otherwise) is issued to dropouts.

2.5.9 THE WEAK POINTS OF THE EVALUATION PROCEDURE:

2.5.9.1 The present empirical evaluation study reveals that no evaluation device - Book on unitwise tests (Anoupcharik Shiksha Ekai Parakh Pustika) devised by SIERT, Rajasthan is made available to NFE instructors.

2.5.9.2 No literature containing evaluation technique and procedure devised by SIERT and Directorate of Adult Education, Rajasthan is supplied to the NFE Centres, which is very much surprising

2.5.9.3 The curriculum devised for NFE programme for primary level is quite silent about evaluation technique and evaluation procedure.

2.5.9.3.1 Moreover, no curriculum ever reaches the hands of the instructors which is very much discouraging and distressing.

2.5.9.4 No system is prevalent for assessing the progress of academic achievements of learners weekly, fortnighly or monthly.

2.5.9.5 No periodical tests, quarterly, half yearly or yearly examination, no standardised tests, no public examination is organised at primary level of NFE programme.

2.5.9.6 The instructors are quite ignorant of the technique of diagnostic testing and remedial teaching.

2.5.9.7 The inservice training imparted to the instructors for six days' duration acquainting them with evaluation technique etc. is quite inadequate and insufficient, more particularly for under-qualified instructors. (75% instructors possess the academic qualification upto middle standard)

2.5.9.8 No academic and pedagogical guidance is provided by the supervisors and other Administrative Officers to the instructors in this connection.

2.5.9.9 No guidance academic as well as pedagogical is made available to the instructors from the local formal school teachers in evaluation technique etc.

2.5.9.10 Under the aforesaid adverse circumstances and uncongenial atmosphere devoid of all privileges of education the instructors organise teaching learning activities under the complete darkness of ignorance. Consequently the standard of the scholastic achievements of NFE children has been affected very adversely.

2.5.10 SUGGESTIONS FOR IMPROVEMENT

2.5.10.1 The adequate and sufficient knowledge should be imparted to the instructors through inservice training programme about the evaluation technique and evaluation procedure for which the duration of inservice training should be increased to fifteen days.

2.5.10.2 The refresher course should be organised at least for six days' duration every year for instructors to orient them in evaluation techniques etc.

2.5.10.3 The SIERT, Rajasthan should arrange the supply of the following to all NFE Centres:-

i. Curriculum duly modified, revised and reframed incorporating the evaluation technique and evaluation procedures.

ii. Text books duly revised and modified integrating all the subjects of the studies and incorporating the exercises on objective based and essay type questions at the end of every lesson.

iii. a) Training Manual
   b) Teacher's Guide
   c) Evaluation Device + A Book on unitwise tests
   d) An Introduction to NFE.

2.5.10.4 The adequate and frequent academic and pedagogical guidance should be provided by the supervisors particularly in the evaluation technique and procedure and in framing teaching learning strategies and organising diagnostic testing and remedial teaching.

2.5.10.5 Through school complex programme the services of the academically enlightened and professionally sound formal school teachers should be utilised for providing academic and pedagogical guidance to the instructors.

2.5.10.6 Some standardised tests for the assessment of social adjustment, attitudes and behaviour developed by the NFE learners should be evolved under the auspices of SIERT, Rajasthan.

2.5.10.7 A District level or Block level organisation should be set up for the evaluation of the pupils scholastic achievements, who want to continue their further education by seeking admission to formal schooling after the completion of the entire course prescribed for primary level.

2.5.10.8 The instructor of NFE Centre may be empowered to issue certificates to the learner about his academic achievements and competencies developed by him on the completion of the entire course prescribed and due weightage should be given to it while seeking admission to formal schooling.

2.5.11 EVALUATION OF NFE PROGRAMME IN RAJASTHAN:

2.5.11.1 SCHEME OF EVALUATION OF NFE PROGRAMME AND ITS FREQUENCY:

The SIERT, Rajasthan takes care of the academic and general evaluation of the total NFE programme in the state through tools and techniques developed for the purpose; whereas the administrative and the organisational aspects are looked after by the Joint Director of NFE, Rajasthan on behalf of the State Government.

2.5.11.2 TOOLS AND TECHNIQUES:

The SIERT, Rajasthan has developed a yearly evaluation tool for the whole of the NFE programme in Rajasthan, whereas, regular inspection and effective supervision by the Joint Director of NFE is the tool for the evaluation of administrative and organisational aspects of NFE programme in the State.

2.5.11.3 PROFORMAS AND PROCEDURE FOR KEEPING THE RECORD OF PUPIL'S ACHIEVEMENTS AND THE PROGRESS OF NFE PROGRAMME:

2.5.11.3.1 The quarterly progress pertaining to the academic achievements of each learner is recorded

by the instructor on the prescribed proformas at every NFE Centre.

2.5.11.3.2 The supervisor submits a detailed quarterly report of each NFE centre of his block to the District Education Officer concerned.

2.5.11.3.3 The study further reveals that the monthly progress report of each NFE Centre is submitted by the instructor to his supervisor on the prescribed proforma.

2.5.11.3.4 The consolidated monthly progress report of all the NFE Centres of the block is sent to D.E.O. by the supervisor after the due scrutiny.

2.5.11.3.5 The D.E.O. submits the M.P.R. (Monthly Progress Report) of his District to the Joint Director of NFE, Rajasthan with a copy to the Director, SIERT, Rajasthan, Udaipur.

2.5.11.3.6 The Block Development Officer also submits the monthly progress report of NFE programme of his block to the D.E.O. concerned.

2.5.11.3.7 The Joint Director of NFE submits the consolidated M.P.R. to the State Government, which presents a true picture of NFE programme in the State.

...654/-

2.5.11.3.8 Though all the aforesaid formalities are observed it cannot be said with confidence that the M.P.R. is genuine and presents really a true picture of the NFE programme in the state in absence of the effective, genuine and frequent supervision bythe supervisor and other Administrative Officers .

...655/-

2.6 CLASS MANAGEMENT:

2.6.1 From the perusal of the preceding chapters it is quite evident that the effective and efficient class management motivates the NFE children to develop desired competencies through active participation of teaching learning activities organised by the instructor at NFE Centre, whereas the poor class management affects the performance of learners very adversely.

2.6.2 Two types of factors are responsible for maintaining effective class management.

2.6.2.1 Physical factors:

i. Location of the NFE Centre, Accommodation, sitting arrangement, adequate lighting arrangement and other physical facilities pertaining to drinking water, lavatory etc.

ii. Instructional material including text books, slates, pencils, exercise books etc.

iii. Availability of resource materials (Teaching aids, play things etc.) Black-board, chalk sticks, Audio-visual aids and literature on teaching methodology, evaluation technique etc.

2.6.2.2 Human Factors:

i. Instructor, his academic and professional qualification, command on contents, competency in communicative skill and in organising teaching learning activities and above all his sincerety, dutifulness and involvement in the programme.

ii. Supervisor, Administrative authorities and other NFE functionaries.

iii. Local community and developmental agencies

iv. NFE learners.

PHYSICAL FACTORS:

2.6.3 LOCATION OF NFE CENTRES AND LACK OF PHYSICAL FACILITIES:

2.6.3.1 The present empirical evaluation study reveals that mostly the NFE Centres located in the remotest rural, tribal, hilly and desert regions of the state are run in the small residential huts of the instructors; which are devoid of proper ventilation, adequate accommodation and lighting arrangements. Moreover, no facilities for drinking water, lavatory etc. are provided there. Under the aforesaid

2.6.3.2.3 The study further reveals that 90% NFE Centres do not get the supply of resource material, literature on teaching methodology, evaluation technique, teacher's guide, training manual, book on unit-wise tests and even curriculum, consequently the academically under-qualified and professionally unsound instructors face a lot of difficulties and problems in curriculum transaction which reflects the class management very adversely.

2.6.4 HUMAN FACTORS:

2.6.4.1 INSTRUCTORS:

The present study reveals that 75% instructors are under-qualified (They possess the academic qualification upto Middle standard) and possess very poor knowledge of course contents.

2.6.4.2 The study further reveals that 40% instructors do not possess the competency in communication skill; consequently their class management has been affected very badly resulting in the horribly poor performance of their NFE children.

uncongenial atmosphere the teaching learning activities for the heterogeneous age group of about 25 children cannot be organised properly and the class management isnot maintained effectively.

2.6.3.2 UNTIMELY SUPPLY OF INSTRUCTIONAL MATERIAL:

2.6.3.2.1 The study further reveals that the instructional material consisting of text books, slates, pencils, exercise books etc. are supplied to NFE children free of cost. The complicated and time consuming procedure of supplying the text books by SIERT, Rajasthan through RSTB, D.E.O. and the supervisor puts hinderances in the timely supply of the aforesaid material.

2.6.3.2.2 Further, the teaching devices and appliances - Black-boards, chalk sticks, maps, charts etc. supplied by the B.D.O. do not reach the NFE centres in time. The non-availability of the instructional and teaching material in proper time hampers the class management and organisation of teaching learning activities.

2.6.4.3 Due to inadequate knowledge of teaching technology, evaluation device, insufficient inservice training for six days' duration, lack of academic and pedagogical guidance by supervisors the instructors face a lot of difficulties in organising teaching-learning activities and maintaining effective class management.

2.6.4.4 The low and poor attendance of learners hampers the curriculum transaction. Due to insincerety of instructors in maintaining punctuality and regularity at the NFE centres, and lack of incentives in the form of midday meals, free uniform, provision of scholarship and award of prizes for excellent performances the NFE children do not get motivated in maintaining regularity, continuity and retention at the NFE Centre.

2.6.4.5 The involvement of local community and developmental agencies helps in the smooth functioning of the NFE Centres. The community extends active co-operation for the enrolment of out of school children and in motivating the enrolled children for maintaining continuity

...660/-

and retention upto the completion of the entire course prescribed for the primary level.

2.6.4.6 The present study reveals that the community involvement in the NFE programme enabled the instructors in maintaining effective class management and in the efficient organisation of teaching learning activities which ultimately reflected in the significantly remarkable performance of NFE children, whereas the non-cooperation of the community affected the performance of NFE children quite adversely.

2.6.4.7 The study further reveals that the congenial atmosphere of the NFE Centre, behaviour of the instructor, his command over the contents of the courses, his competency in communicative skill, his teaching technique, his involvement in the NFE programme and efficiency in organising teaching learning activities by maintaining effective class management motivates the learners for maintaining continuity and retention at the NFE Centre and in developing the desired competencies.

2.6.5 SUGGESTIONS FOR IMPROVEMENT:

2.6.5.1 The efforts should be made to provide adequate accommodation, physical facilities in respect of drinking water, lighting arrangement etc. through active cooperation of the community and other developmental agencies for maintaining effective class management and organisation of teaching learning activities at the NFE Centre.

2.6.5.2 The SIERT, Rajastha, should take necessary steps for the supply of instructional material and other literature devised on teaching methodology, evaluation procedure, training programme etc. to the NFE centres well in time.

2.6.5.3 The adequate arrangement for the timely supply of instructional material - Text books, slates, pencils, exercie books etc. to NFE children and teaching aids to the NFE Centres should also be made.

2.7 CO-CURRICULUM ACTIVITIES IN NFE PROGRAMME:

2.7.1 From the perusal of the preceding chapters it is quite evident that the regular organisation of Co-curricular and recreational activities including games and sports and other literary and cultural activities motivates the NFE children to maintain regularity, continuity and retention at the NFE Centres and attract the out of school children towards the NFE Centres to seek admission.

2.7.2 The present empirical evaluation study reveals that no co-curricular activities are organised at the cent-percent NFE centres of the block Pisangan and 80% centres of Sri Nagar of District Ajmer. Consequently a large number of NFE children droput causing a lot of wastage.

2.7.3 The low and poor attendance and irregularity of NFE children of the aforesaid blocks put hinderances in the successful and effective organisation of teaching and learning activities at the NFE centre and ultimately affected the performances of the children.

2.7.4 The poorest performance of the NFE children of the block Sri Nagar and Pisangan of District Ajmer in all the subjects of level I and level II respectively bears the testimony of the aforesaid facts.

2.7.5 SUGGESTIONS FOR IMPROVEMENT:

2.7.5.1 The adequate and sufficient knowledge should be imparted to the instructors in the organisation of the co-curricular and recreational activities at the NFE Centres.

2.7.5.2 The arrangement for the supply of games materials at the NFE centres should be made at the Block level.

2.7.5.3 The active cooperation of the local community should be sought for the allotment of land for play fields etc.

2.8. VOCATIONAL ACTIVITIES AND NFE PROGRAMME:

2.8.1 The present empirical evaluation study reveals that majority of the NFE children belong to the socially and economically backward classes of the society i.e. SC/ST and other poverty striken community. Such children either assist their parents in their vocation o follow some economic pursuits to augment the income of their family. Being the economic units of the family the girls are also engaged in some occupation.

2.8.2 The curriculum pursued at the NFE Centres does not meet their needs. Very little emphasis is laid upon some vocational training through socially useful productive work (SUPW).

2.8.3 No provision has been made for the supply of essential tools, implements, equipments and raw material at the NFE centres.

2.8.4 No arrangement exists for the saleability of the finished products.

2.8.5 Moreover, the instructors are not at all provided with any kind of training in some useful crafts.

2.8.6 SUGGESTIONS FOR IMPROVEMENT:

2.8.6.1 In order to develop the competencies, capabilities and skills in useful crafts some sort of vocational training should be imparted to the NFE children suiting to their needs, life situations, social and geographical conditions after conducting a detailed survey and finding out the burning needs of the communities at large and availability of raw material.

2.8.6.2 The intensive knowledge of the vocations such as Agriculture, Animal husbandary, dairy etc. followed by their parents should be provided to the children at the NFE Centres.

2.8.6.3 The girls should also be provided with adequate knowledge and training in tailoring, dress designing, knitting and embroidery.

2.8.6.4 The provision for the supply of essential tools, implements, equipments and raw materials should be made at the NFE centre according to the needs.

...666/-

2.8.6.5 The arrangement for the saleability of finished products should also be made at block level.

2.8.6.6 The intensive training in theory as well as in practice of various useful crafts and vocations should be provided to the instructors through inservice training.

CHAPTER - III

3.1 INSTRUCTOR

It is an admitted fact that the successful implementation of any educational programme depends upon the sincerety, dedication and devotion of the persons working at the grass-root level in the field. An instructor working at the grassroot level in the field, is an overall incharge of the NFE Centre, plays an important and pivotal role. His sincerety and his involvement in the programme proves very helpful in the successful implementation of NFE programme.

3.2 PLACEMENT OF INSTRUCTOR:

3.2.1 The present study reveals that 100% instructors belong to the same locality of the NFE centre and continue staying there till the completion of the entire course prescribed for primary level, which is very much encouraging.

3.2.2. None belongs to the weaker section of the society i.e. SC and ST, only 10% are females, which hampers the education of girls.

3.3 QUALIFICATION:

3.3.1 The study further reveals that 75%

instructors are academically under-qualified and professionally unsound. The short term inservice training for six days' duration does not compensate their low qualification.

3.4 PROBLEMS FACED IN CURRICULUM TRANSACTION

3.4.1 The instructors face a lot of problems in curriculum transaction and a great deal of difficulties in organising teaching learning activities at the NFE Centre on account of the following reasons:-

i. Inadequate knowledge of course contents.

ii. Ignorance of teaching techniques and teaching methodology.

iii. Lack of competency in communicative skill.

iv. Incompetency in maintaining effective class management.

v-a No literature on teaching technology such as Training Manual, Teacher's Guide, evaluation device - A book on unitwise test etc. is supplied to the instructors, which is very much discouraging.

v-b It is very much distressing that even the curriculum does not reach their hands.

vi. Lack of evaluation technique and evaluation procedure puts hinderance in the diagnostic testing and remedial teaching and in framing teaching learning strategies after assessing the skill, knowledge and competencies developed by the learners.

vii. The course contained in the text book is too much to be covered within the prescribed period allotted to them. Moreover, the contents of the text books is beyond the comprehension of the learners.

viii. No timely supply of instructional material consisting of text books, slates, pencils, exercise books and other resource material.

ix. The lack of effective supervision and academic and pedagogical guidance by the supervisors and other Administrative authorities.

x. The low and poor attendance of NFE children and the problem of dropouts puts hinderance in the organisation of teaching learning activities at the NFE Centre.

xi. The lack of incentives in the form of midday meals, free uniform, provision of scholarship to the poor, needy and girls, award of prizes

for outstanding performance etc. does not motivate NFE children in maintaining punctuality, regularity, continuity and retention at the centre.

xii. Lack of community involvement and other developmental agencies does not motivate the parents to send their out of school children to NFE centres to get education and encourage the enrolled children to maintain regularity and continuity at the Centre upto the completion of the entire course prescribed for primary level.

xiii. Due to lack of provision the recreational and co-curricular activities including games and sports are not organised at the NFE Centres.

3.4.2 The present empirical evaluation study reveals that despite all the short-comings and deficiencies in respect of physical facilities, the sincerety, dedication and involvement of the instructors in the NFE programme and the aspiration of NFE children, the significantly remarkable scholastic achievements were attained by the children in all the subjects. Moreover,

...671/-

the NFE children developed the desired competencies at par with formal school children. Their performances have been far better than that of the formal school children, which is quite evident from the comparative statements of the performances of NFE children . (The comparative statements of their performances are appended herewith - Appendix - G.H.).

3.4.3 The study further reveals that due to the sincere efforts of the instructors the NFE children attained better standard of performances than that of the NFE children of voluntary agencies, which is quite evident from the comparative statements appended herewith (Appendix - E.F.).

3.4.4. SUGGESTIONS FOR IMPROVEMENT

3.4.4.1 The intensive, adequate and sufficient trainin should be imparted to the instructors in teaching methodology, evaluation technique, course contents, for developing competencies in communicative skills, class management, organisation of teaching learning activities, skill in motivation technique, community participation and community involvement in NFE

programme etc. for which the duration of inservice training should be increased to fifteen days.

3.4.4.2 Refresher course for at least six days' duration should be organised every year to orient the instructors in the use of advanced educational technology, multi-media in learning process and to solve the problems faced in curriculum transaction.

3.4.4.3 The training programme and procedure should be modified to compensate the low academic qualification of instructors.

3.4.4.4 The SIERT should develop a Handbook for the adequate guidance of the instructors and should be made available to all of them.

3.4.4.5 The curriculum and other literature, consisting of Training Manual, Teacher's Guide, evaluation device - A book on unit-wise tests, An introduction to NFE etc. should be supplied well in time to all the instructors. The curriculum should be modified, revised and reframed integrating all the text books and incorporating teaching technology and methodology,

specific objectives for teaching specific concepts, topics etc. and evaluation technique and procedure etc.

3.4.4.6 The selection of the instructors should be made impartially through a selection committee constituted for it. While selecting the instructors the following points should be taken care of:

i) Instead of academic, qualification the suitability of the instructor for the special programme of NFE and his attachment with the development of the village should be given due emphasis.

ii) Preference should be given to the persons belonging to SC/ST and other backward classes in recruitment to provide incentives to the children of SC/ST.

iii) The females should also be given due preference for their recruitment as NFE instructor to encourage female education.

iv) Only the local persons should be selected and appointed as instructors.

3.4.4.7 In order to provide incentive to NFE Centre instructors preference should be given to them for their selection as formal school teacher keeping in view of their academic qualification.

3.4.4.8 The teaching kits should be developed for the effective use of instructors.

3.4.4.9 The self-learning packages should be prepared for encouraging self-learning in NFE children.

3.4.4.10 Programme learning and activity methods should be introduced suiting to the needs and learning situations of learners.

3.4.4.11 The frequent and effective supervision of NFE centres should be conducted by the supervisors and adequate academic and pedagogical guidance should be provided to the instructors to develop competencies in respect of contents of the courses prescribed in the curriculum and perfect knowledge of teaching methodology for teaching various themes, concepts and topics of different subjects.

3.4.4.12 Through school complex programme the service of the academically enlightened and professionally sound formal school teachers should be utilised

...675/-

for providing academic and pedagogical guidance to the instructors.

3.4.4.13 Remuneration of instructors should be increased to Rs. 300/- P.M..

CHAPTER - IV

4.1 SUPERVISION OF NFE CENTRES:

4.1.1 The effective supervision and monitoring is an essential component for the successful implementation of NFE programme.

4.1.2 An adequately qualified, professionally sound (A trained post graduate) and experienced senior teacher works on deputation from the education department as supervisor of fifty NFE centres of a block under the administrative control of the block development officer.

4.1.3 The SIERT, Rajasthan, the sponsoring agency, imparts a six days' inservice training to the supervisors in accordance with the course contents and procedure prescribed in the Training Manual (Anoupcharik Shiksha Anudeshak Prashikshan Manjusha).

4.1.4 As an overall incharge of the NFE programme at the block level a supervisor performs the following duties:

4.1.4.1 Conducts supervision or visit to NFE centres of his block

4.1.4.2 Provides academic and pedagogical guidance to the instructors and solves their problems and difficulties arising during the course of curriculum transaction.

4.1.4.3 Evaluates pupil's performances and encourages them to develop desired competencies at par with formal education.

4.1.4.4 Infuses the spirit of regularity, punctuality, continuity and retention at the NFE centre upto the coverage of the entire prescribed course.

4.1.4.5 Scrutinizes the record maintained at the NFE Centre pertaining to the regular academic progress of NFE children and provides guidance for submitting the periodical progress reports of the NFE centre to the higher authorities concerned.

4.1.4.6 A supervisor evokes participation of the local community for providing adequate accommodation of the NFE Centre alongwith all the necessary physical facilities pertaining to the seating arrangement, lighting arrangement, facilities for drinking water and lavatory etc.

4.1.4.7 He seeks active cooperation of the community leaders and parents for the enrolment of the out-of-school children and motivates the enrolled children for maintaining punctuality, regularity, continuity and retention at the NFE Centre.

4.1.4.8 He organises the inservice training for the instructors of all the NFE centres of his block under the guidance and supervision of D.E.O. and A.P.O.

4.1.4.9 A supervisor arranges the supply of instructional material to NFE children and teaching material to the NFE Centre.

4.1.4.10 Moreover, he contacts the higher authorities of education department and suggests them for the timely supply of the instructional material, incentives to NFE children in the form of midday meals, free uniform, provision of scholarships, award of prizes for outstanding performances to avoid low and poor attendance of NFE children and to inculcate the spirit of maintaining punctuality, regularity, continuity and retention at the NFE centres.

....679/-

4.1.4.10.1 To increase the duration of the period of inservice training from six days to 15 days.

4.1.4.10.2 To organise refresher course every year for six days' duration to orient the instructors in the latest developments of NFE programme and for solving their problems experienced by them during the course of curriculum transaction.

4.1.4.10.3 He takes adequate steps for the selection of sincere, dedicated and suitable persons having emotional attachment for the development of his village and community and to develop the quality and standard of NFE children.

4.1.4.11 The supervisors are handicapped in conducting frequent and effective supervision of fifty NFE centres even once in three months on account of the following reasons:-

4.1.4.11.1 Lack of adequate transport facilities to reach the centres located in the remotest parts of hilly, tribal and desert regions, where no transport facilities of any kind are available.

4.1.4.11.2 Additional overlapping assignment pertaining to the developmental activities of the block

which hampers his normal work of supervision.

4.1.4.11.2.1 The supervisors feel that the dichotomy of management puts hinderances in the performances of their sincere duties and suggest that the administration of NFE programme should be withdrawn from the Development Department.

4.1.4.11.3 As per norms fifty centres have been allotted to one supervisor, but it is neither practicable nor feasible to conduct a formal visit to each of them even once in three months.

4.1.5. SUGGESTIONS:

4.1.5.1 Adequate transport facilities should be provided to the supervisors for conducting effective and frequent supervision of the NFE centres and for providing adequate and sufficient academic and pedagogical guidance to the instructors.

4.1.5.2 The norms of allotment of NFE centres should be determined keeping in view the Geographical situations of the region, but the number should not exceed 25.

4.1.5.3 Different models of supervision should be adopted according to the requirement and feasibility such as :

i) Through whole time supervisor with the norm of 20-25 NFE centres per supervisor.

ii) Through school complex programme. The headmasters of local formal schools should be asked to conduct frequent and effective supervision of the NFE centres and to provide adequate academic and pedagogical guidance to the instructors.

iii) Through supervisors of formal schools.

4.1.5.4 The inservice training programme for supervisors should be modified and the duration should be increased to fifteen days.

4.1.5.5 The refresher course for supervisors should also be organised every year for at least six days' duration.

...... 682/-

CHAPTER - V

NFE CHILDREN AND THEIR ACADEMIC ACHIEVEMENTS

5.1 On the basis of the critical analysis and comparative statements (appended herewith-A-D) of the performances of NFE children studying at the NFE centres of the sample and belonging to the different age groups of below 11 years, above 11 years and both in different subjects - Language, Hindi, Mathematics, Environmental studies and Natural science for level I and level II. It is quite evident that:

5.1.1 The NFE children of all communities belonging to the age group of below 11 years maintained the best performances in all the subjects of langua e Hindi, Mathematics and Environmental studies for level I. Their standard of scholastic achievements is far superior to that of the children belonging to the age group of above 11 years as well as both the age groups of below 11 and above 11 years.

5.1.2 The contribution of the NFE children belonging to SC/ST is significantly remarkable towards the best performances.

...683/-

5.1.3 Maximum percentage of SC/ST children (Male and female) as well as females of all communities of the age groups below 11 years scored the higher percentage of marks under the category below average ranging between 10 to 30.

5.1.4.1 The present empirical evaluation study further reveals that the NFE children of all communities belonging to the age group of above 11 years maintained the best performances in language Hindi, Mathematics and Environmental studies for level II.

5.1.4.2 The standard of scholastic achievement of above group is superior to the children of other two age groups.

5.1.4.3 In Natural science the children belonging to the age group of below 11 years maintained the best performances, which is an exception.

5.1.5 The contribution of the children of SC/ST towards the best performance in Language, Maths and Environmental studies for level II is poorer to the SC/ST children of other age groups.

5.1.6 The maximum number of children of SC/ST belonging to the age group of below 11 years contributed to the best performance in Natural science for level II.

...684/-

5.1.7 The study further reveals that the contribution of the NFE children belonging to the weaker sections of the society i.e. SC/ST and females is significantly remarkable towards best performance.

5.2 Comparison of the performances of NFE children studying at NFE centres run by the Govt. Agencies with that of the NFE children of voluntary agencies in all the subjects for level I and level II.

5.2.1 The present empirical evaluation study reveals that the standard of the scholastic achievements of the NFE children studying at the NFE centres run by the Government Agencies is far far superior to that of the NFE children of voluntary agencies in all the subjects for level I and level II.

5.2.2 The study further reveals that more than 60% NFE children of voluntary agencies scored very low percentage of marks under the category of below average ranging from 0 to 10 in the subjects Language Hindi for level I and level II and in Mathematics for level II.

...685/-

5.2.3 Further more than 40% NFE children of voluntary agencies scored the very low percentage of marks under the aforesaid category in Environmental studies for both the levels and in [illegible] Science, which explicitly signifies [illegible] performance and is quite evident from [illegible] tive statements of their performances [illegible] herewith (E-F).

5.2.4. The study further reveals that the contribution of NFE children of voluntary agencies belonging to the weaker sections of the society i.e. SC/ST towards good performances has been remarkably significant and bears the testimony of their aspirations for leading a better life on getting education.

5.3 Comparison of the performances of the NFE children studying at the NFE Centres run by the Govt. Agencies with that of the formal school children in all the subjects for level I and level II.

5.3.1 The present empirical evaluation study reveals that the standard of the scholastic achievements of NFE children Male and female of

all communities and belonging to both the age groups of below 11 and above 11 years is far far better than that of the formal school children in all the subjects - Language- Hindi, Mathematics and Environmental studies for level I.

5.3.2 The study further reveals that the performances of NFE children are superior in Language, Mathematics and Environmental studies for level II to that of the Formal school children, but in Natural science the children of both the categories (NFE as well as formal schooling) maintained equal standard of performance, which is quite evident from the comparative statements appended herewith (G-H).

5.3.3 The remarkable scholastic achievements of NFE children studying at the NFE centres run by the Government Agencies bear the testimony of the fact that they have developed the desired competencies at par with formal school children fulfilling the objectives of Non-formal education.

5.3.4 Further, the parents of the NFE learners, when interviewed expressed their pleasure about the impact of education of their children reflected

...687/-

through their academic competencies, sharing home responsibilities and their attitudinal behaviour.

5.3.5 The study further reveals that the employers of the NFE learners are also much impressed to observe the impact of education upon their employees (NFE learners) reflected through the better understanding of the job, work efficiency, developed scientific outlook, academic competencies, sense of responsibility and improved manners and etiquettes of their employees.

CHAPTER - IX

SUMMARY OF RECOMMENDATIONS

9.1

I-CURRICULUM The curriculum needs revision, modification and integration of various subjects- language, environmental studies, natural sciences, Mathematics, SUPW and health and hygiene incorporating specific method of their teachings.

9.1.2 It should also contain evaluation technique and evaluation procedure for assessing the competencies, skill and knowledge of NFE learners in various subjects.

9.1.3 The specific aims and objectives and learning out - comes should specifically be mentioned for each components

9.1.4 The objectives of the curriculum should be elaborated and related to the objectives of nonformal education.

9.2

II- INSTRUCTIONAL MATERIAL

9.2.1 The course contents in the text books is too heavy to be covered within prescribed period and is beyond the the comprehension of the NFE children. Hence, the text books should be revised and modified integrating various concepts of linguistic skills, sociological concepts, Natural sciences, SUPW health and hygiene and Mathematics

and incorporating teaching methodology for teaching every lesson.

9.2.2 The contents of the text books should be graded according to the mental development of NFE children.

9.2.3 The text books should contain the problems related to desert, hill and tribal areas of Rajasthan.

9.2.4 The exercises given at the end of each lesson should contain objective based questions as well as essay type questions to develop free and forceful expressions of the NFE children of 9-14 years' age group.

9.3 III- METHODS OF TEACHING

9.3.1 The literature and teaching material consisting of various methods of teaching different subjects, developed by SIERT and the Directorate of Adult education Rajasthan should be made available to the instructors for effective use and guidance.

9.3.2 The knowledge imparted to the instructors about the various methods of teaching during six days inservice training is quite inadequate and insufficient and should be enh need.

9.3.3 The SIERT should take necessary steps for the supply of the following literature and teaching material to the instructors at the NFE contres :

...690/-

(i) Curriculum

(ii) Training Manual

(iii) Teacher's guide

(iV) Evaluation Device (Abook on unit-wise tests)

(v) An introduction to NFE

(vi) Text books

9.3.4 A handbook should be devised for the effective use and guidance of instructors while organising teaching learning activities at the NFE centre.

9.3.5 The self-learning package should be developed and supplied to the NFE Centres for encouraging self learning in children.

9.3.6 The teaching kits should also be developed for effective use of instructors.

9.4

IV - TRAINING PROGRAMME AND PERSONNEL

9.4.1 The inservice training for six days duration imparted to the instructors is quite inadequate and insufficient and does not compensate their low academic qualification. Hence, the SIERT, Rajasthan should take necessary steps for imparting intensive training to the instructors in teaching methodology, course contents of text books, evaluation technique and procedure, development of communicative skill and competencies for organising teaching learning activities,

....691/-

recreational and co-curricular activities, motivation technique, enrolment of out of school children, community involvement etc. for which the duration of inservice training should be increased from six days to fifteen days.

9.4.2 Refresher course for atleast six days duration should be organised every year for instructors as well as supervisors to orient them in the latest teaching techniques, use of multi-media in learning process and educational technoldgy etc.

9.4.3 The training programme and procedure should be modified. It should be participatory and need based, which should compensate the low academic qualifications of instructors.

9.4.4 Due emphasis should be laid upon practical aspects and individual training.

9.4.5 The training proggramme for supervisors, A.P.Os. and other supervisory authorities should also be modified according to their needs.

9.5

V - EVALUATION OF PUPILS ACHIEVEMENTS

9.5.1 No system is prevalent for assessing the progress of academic achievements of learners weekly, fortnightly or monthly, which should be carefully devised now.

....692/-

9.5.2 No periodical tests, quarterly, half yearly, or yearly, no standardized tests, no public examination is organised at primary level. The necessity of such tests should be reviewed.

9.5.3 Awarding formal or otherwise certificates to the NFE learners should also be considered.

9.5.4 The intensive training should be imparted to the instructors in evaluation technique and procedure.

9.5.5 A district level or Block level organisation should be set up for the evaluation of pupils scholastic achievements for those who want to continue their education by joining formal schooling.

9.5.6 The instructors should be empowered to issue certificates to the learners about their academic achievements and competencies developed on the completion of the entire course prescribed and due weightage should be given to it while seeking admission to formal schooling.

9.6
VI-VOCATIONAL ACTIVITIES AND NFE PROGRAMME

9.6.1 The curriculum pursued at the NFE Centres lays very little emphasis upon vocational training through socially useful productive work. This fact should be kept in view while revising the curriculum.

...693/-

9.6.2 No provision is made for the supply of tools, implements, equipments and raw material for imparting training in some useful crafts at NFE Centres; which should be made early now according to the needs.

9.6.3 The instructors should be provided with some kind of training in useful crafts.

9.6.4 In order to develop competencies and skills in useful crafts some vocational training should be imparted to the NFE children suiting to their needs, life situations etc after conducting a detailed survey and availability of raw material.

9.6.5 The intensive training in theory as well as in practice of various useful crafts and vocations should be provided to the instructors through inservice training.

9.7

VII-THE INSTRUCTOR AND NFE PROGRAMME

9.7.1 The intensive, adequate and suffcient inservice training should be imparted to the instructors as stated above.

9.7.2 The refresher course for atleast six days duration should be organised for the instructors every year to solve their problems faced in curriculum transaction and to orien them in the latest teaching techniques etc.

...694/-

9.7.3 The inservice training programme for instructors etc. should be modified to compensate their low academic qualification.

9.7.4 The selection of sincere, enthusiastic and keenly interested in the development of the children as well as local community should be made for the post of instructor impartially through a "Selection Board" constituted for the purpose.

9.7.5 In order to provide incentive to the NFE Centre instructors preference should be given to them for their selection as formal school teachers keeping in view of their academic qualifications.

9.7.6 Through school complex programme the services of the academically enlightened and professionally sound formal school teachers should be utilised for providing academic and pedagogical guidance to the instructors.

9.7.7 The remuneration of the instructors should be increased to Rs. 300/- P.M.

9.8

VIII-SUPERVISION OF NFE CENTRE

9.8.1 The norms for the supervision of NFE Centres should be determined keeping in view the geographical situations of the region; but the number of NFE Centres should not more exceed to 25 for conducting effective and frequent supervisi

....695/-

9.8.2 Adequate transport facilities should be provided to the supervisors.

9.8.3 In order to avoid dichotomy of management the administration of NFE programme should be withdrawn from the Development Department.

9.8.4 Different models of supervision should be adopted according to the requirement and feasibility such as :

9.8.4.1 Through whole time supervisor with the norm of 20-25 NFE Centres for supervisor.

9.8.4.2 Through school complex programme, the Headmasters of local formal schools should be asked to conduct frequent and effective supervision.

9.8.4.3 Through supervisors of formal schools.

. ..

....696/-

616
114
62

APPENDIX -'A'

Comparative statement of the performances of NFE children belonging to the different age groups below 11 years. Above 11 years and both in Language (Hindi for level I and Level II

Characteristics Different Age groups	Level I Percentage of children scoring the Marks				Level II percentage of children scoring the marks			
	Below Average 0 to 10		Above Average 10 to 30		Below Average 0 to 10		Above Average 10 to 30	
	All Communities	SC/ST	All Communities	SC/ST	All Communities	SC/ST	All Communities	SC/ST
Below 11 years	33%	9%	67%	20%	39%	9%	61%	27%
Above 11 years	44%	8%	56%	15%	20%	5%	80%	19%
Both the age groups of below 11 years above 11 years	36%	8%	64%	19%	27%	6%	73%	22%

...697/-

APPENDIX -

Comparative statement of the performance of NFE children belonging to the different age groups-- Below 11 years. Above 11 years and both in Mathematics for Level I and Level II.

Characteristics	Level I				Level II			
	Percentage of children scoring the marks				Percentage of children scoring the marks			
Different Age Groups	Below Average 0 to 10		Above Average 10 to 30		Below Average 0 to 10		Above Average 10to 30	
	All communities	SC/ST	All Communities	SC/ST	All Communities	SC/ST	All Communities	SC/S
Below 11 years	14%	4%	86%	24%	41%	7%	59%	20%
Above 11 years	27%	10%	73%	18%	32%	8%	68%	15%
Both the Age groups of Below 11 years Above 11 years	17%	5%	83%	22%	36%	8%	64%	17%

6%

...698/-

APPENDIX -'C'

Comparative statement of the performances of NFE children belonging to the different age groups-- Below 11 years. Above 11 years and both in Environmental Studies for level I and level II.

Characteristics Different age groups	Level I Percentage of children scoring the marks under the category				Level II Percentage of children scoring the marks under the category			
	Below Average 0 to 10		Above Average 10-30		Below Average 0-10		Above Average 10-30	
	All Communities	SC/ST	All Communities	SC/ST	All Communities	SC/ST	All Communities	SC/ST
Below 11 years	18%	7%	82%	22%	16%	5%	84%	25%
Above 11 years	31%	4%	69%	13%	14%	3%	86%	19%
Both the age groups of below 11 years and Above 11 years	21%	6%	79%	20%	15%	5%	85%	20%

.....699/-

APPENDIX -'D'

Comparative statement of the performance of NFE children belonging to the different age groups- Below 11 years Above 11 years and both in Natural Science for level II

Characteristics	Percentage of children scoring the marks under the category of			
Different Age Groups	Below Average 0 to 10		Above Average 10 to 30	
	All Communities	SC/ST	All Communities	SC/ST
Below 11 years	12%	5%	88%	25%
Above 11 years	16%	4%	84%	18%
Both the Age groups of of Below 11 years and Above 11 years	15%	5%	85%	20%

....700/-

APPENDIX - 'E'

Comparative statement of the performances of NFE children belonging to both the age groups of below 11 and above 11 years and studying at the NFE Centres run by Government Agencies and Voluntary Agencies in all subjects- Language, Mathematics and Environmental Studies for Level I

haracter-istics	NFE children of Voluntary Agencies				NFE children of Government Agencies			
	Percentage of children scoring the marks				Percentage of children scoring the marks			
ifferent ubjects for evel I	Below Average 0-10		Above Average 10-30		Below Average 0-10		Above Average 10-30	
	All Communities	SC/ST	All Communities	SC/ST	All Communities	SC/ST	All Communities	SC/ST
anguage Hindi	75%	28%	25%	8%	36%	8%	64%	19%
athematics	29%	11%	71%	27%	17%	5%	83%	22%
nvironmental udies	48%	23%	52%	14%	21%	6%	79%	20%

APPENDIX-'F'

Comparative statement of the performances of NFE children belonging to both the age groups (of below and above 11 years) and studying at the NFE Centres run by the Government Agencies and Voluntary Agencies in all the subjects-Language, Mathematics, Environmental Studies and Natural Science for level II.

Characteristics	NFE children of Voluntary Agencies				NFE children of Government Agencies			
	Percentage of children scoring the Marks				Percentage of children scoring the marks			
	Below Average 0-10		Above Average 10-30		Below Average 0-10		Above Average 10-30	
Different subjects for Level II	All communities	SC/ST	All Communities	SC/ST	All Communities	SC/ST	All Communities	SC/ST
Language Hindi	72%	19%	28%	14%	27%	6%	73%	22%
Mathematics	63%	23%	37%	10%	36%	8%	64%	17%
Environmental Studies	44%	13%	56%	20%	15%	4%	85%	21%
Natural Science	40%	11%	60%	22%	15%	5%	85%	20%

...702/-

APPENDIX -'G'

Comparative statement of performances of the Formal School children and NFE children belonging to both the Age groups (of below 11 and above 11 years) in all the subjects-Language. Mathematics and Environmental studies for level I.

Characteristics	Formal School children				NFE Children			
	percentage of children scoring the marks				Percentage of children scoring the marks			
Different subjects for level I	Below Average 0-10		Above Average 10-30		Below Average 0-10		Above Average 10-30	
	All Communities	SC/ST	All Communities	SC/ST	All Communities	SC/ST	All Communities	SC/ST
Language Hindi	39%	Nil	61%	2%	36%	8%	64%	19%
Mathematics	32%	Nil	68%	2%	17%	5%	83%	22%
Environmental studies	41%	Nil	59%	2%	21%	6%	79%	20%

...703/-

Comparative statement of the performance of the Formal School children and NFE children belonging to both the age groups (of below 11 and above 11 years) in all the subjects for-Language, Mathematics, Environmental Studies and Natural Science for level II.

Characteristics	Formal School children				NFE children			
	Percentage of children scoring the marks				Percentage of children scoring the marks			
Different subject for level II	Below Average 0-10		Above Average 10-30		Below Average 0-10		Above Average 10-30	
	All Communities	SC/ST	All Communities	SC/ST	All Communities	SC/ST	All Communities	SC/ST
Language Hindi	41%	8%	59%	2%	27%	6%	73%	22%
Mathematics	38%	2%	62%	8%	36%	8%	64%	17%
Environmental Studies	18%	Nil	82%	10%	15%	4%	85%	21%
Natural Science	15%	Nil	85%	10%	15%	5%	85%	20%

MEMBERS OF THE WORKING GROUP TO FINALIZE THE TOOLS FOR EMPIRICAL EVALUATION

1. Shri G.D. Sharma,
R.A.-8, Inderpuri,
New Delhi.

2. Shri R.P. Srivastava,
Reader in Education,
Training College,
Jamia Millia Islamia University,
New Delhi.

3. Shri J.P. Kansal,
Head,
Deptt. of Mathematics,
I.A.F. School Subroto Park,
Dhaula Kuan,
New Delhi.

4. Mrs. U. Mathur,
Sr. Science Councillor,
Science Centre No. 2
New Delhi.

5. Shri Santosh Bhatnagar,
Dy. Directo of Education,
I/C PCDC chabiganj, Sultan Singh Building,
Kashmere Gate,
Delhi.

6. Mrs. Veena Pachauri,
Rastogi Higher Secondary School,
Chandni Chowk,
Delhi.

7. Shri Ram Chandra,
Sr. Technician.

8. Shri K.C. Sharma,
Sahayak Siksha Adhikari,

9. Shri Imat Roy,
MCD.

10. Shri M.M. Kapoor,
Head, NSS Unit,
NIEPA.

11. Dr. S.O.A. Nakqi,
Associate Fellow,
NIEPA.

12. Prof. K.G. Rastogi,
NCERT

13. Prof. N.K. Ambasht,
NCERT

14. Dr. (Mrs.) S.R. Arora
NCERT

15. Dr. Nagendr Singh
NCERT

16. Miss S. Das
NCERT

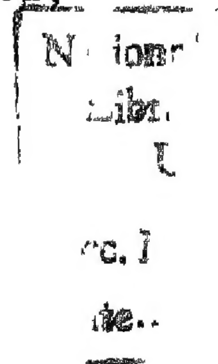
17. Mr. Sanjay Kumar
NCERT

LIST OF INVESTIGATORS

1. Shri M.D. Joshi
   Lecturer
   Govt. Hr. Sec. School,
   Chohtan, Dist. Barmer

2. Shri Dharam Dev Rathi
   Senior Teacher
   Govt. Sec. School,
   Ramsar
   Dist. Barmer

3. Shri Radha Gopal Sharma,
   3295, Jai Lal Munshi Ka Rasta,
   4th Crossing, Purani Basti,
   Jaipur



4. Shri Krishna Sharma
   8/436 Hariyana Bhawan,
   Near Water Tank,
   Sendra Road, BEWAR
   Dist. Ajmer

5. Shri S.P. Sharma
   Retired Dy. Director of Education,
   220 Hathi Bhata,
   Ajmer

6. Shri R.C. Heda,
   Retd. Distt. Education Officer,
   32, Nagnia Bag,
   (Near Shiv Temple)
   Ajmer